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PALESTINE EXPLORATION FUND.

Patron—THE QUEEN.

Quarterly Statement

FOR 1871.



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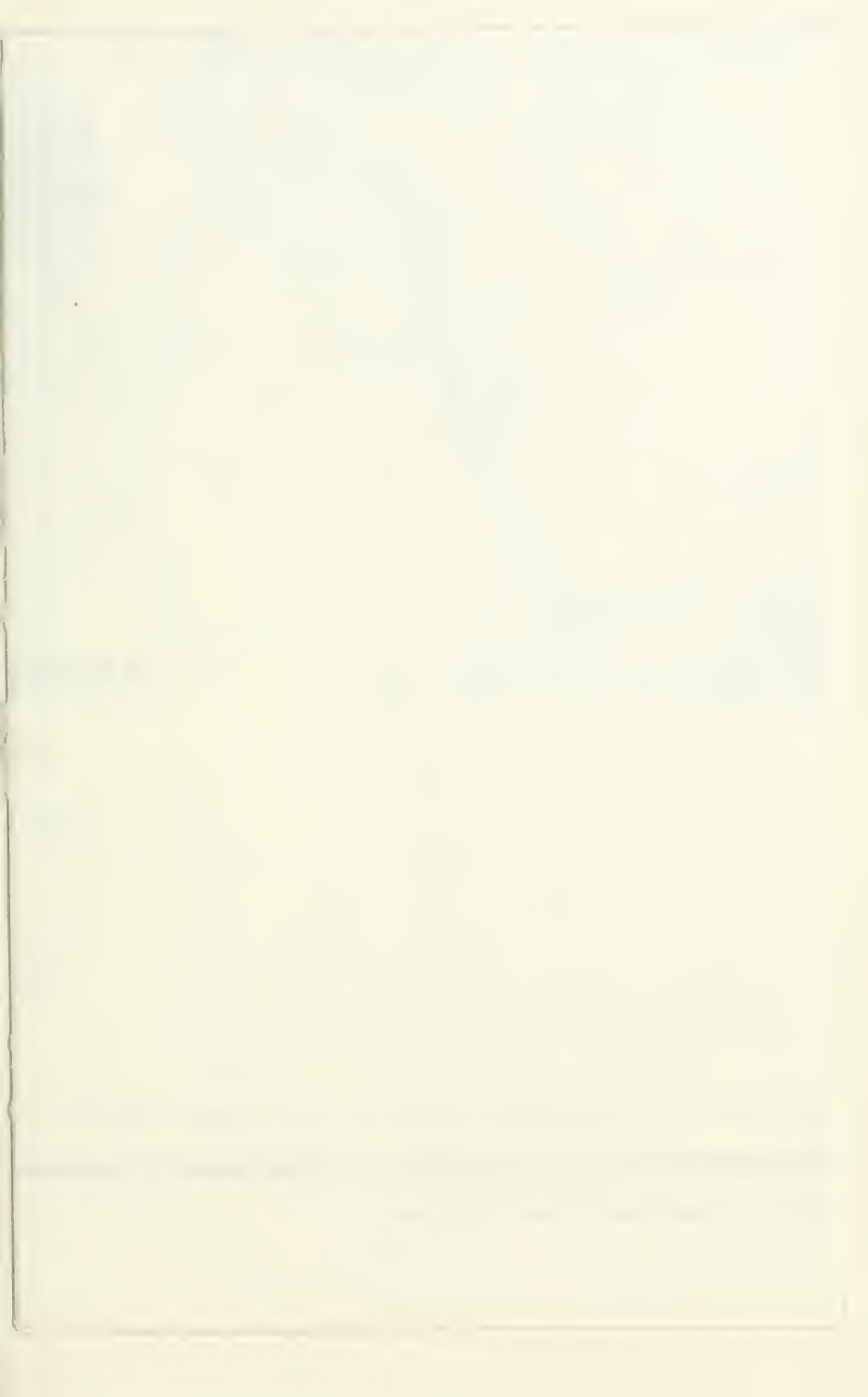
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THE
PALESTINE EXPLORATION FUND.

PREFACE.

THE new series of the Society's *Quarterly Statements* begins with an account of Mr. Palmer's journey of exploration in that little-visited region known as the Desert of the Tih. The great addition made to geographical knowledge by this journey may be ascertained by comparing the map appended to this number with any of those previously in existence of the same region, and by reading the paper appended to Mr. Palmer's account, which is extracted from *Quarterly Statement*, First Series, No. IV.

The main feature of the past year's work at home has been the publication of the book entitled the "Recovery of Jerusalem." This contains, besides Captain Warren's work in the city, an account of the work done by Captain Wilson and Lieutenant Anderson in 1866, and other papers connected with the Society's past work.

In Palestine itself the most prominent incident of the work done was the discovery of the Moabite Stone, and this will always make the year 1870 an *annus mirabilis* in the history of Palestine Exploration. Although the actual discovery of the stone does not belong to Captain Warren, the share he had in the recovery of the remaining portions after its destruction was—as will be seen from the only exact accounts of its discovery, those published in *Quarterly Statements* Nos. V. and VI., and in the "Recovery of Jerusalem"—so important as to warrant the association of his name with that of Mr. Klein and M. Clermont-Ganneau.

Of geographical work, we have, besides Mr. Palmer's adventurous journey already referred to, Captain Warren's account of the Lebanon, Cœle-Syria, Hermon, and Saida; his visit to the Dead Sea; his expedition east of Jordan, and his determination of heights, names, and positions of places, in that part of the country.

In the published proceedings of the Society for the last year, too, will be found Captain Wilson's ingenious identification of the site of Ai.

Among the gains to archæological knowledge, besides the important facts discovered in the shafts at Jerusalem, may be mentioned Captain Warren's careful sketches and plans of the ruined temples of Cœle-Syria. Two of them have been engraved in illustration of the essay by Mr. Phené Spiers in the "Recovery of Jerusalem." We have also M. Clermont-Ganneau's paper on the Stone of Zoheleth; and Dr. Sandreczki's happy suggestion, afterwards verified by M. Guerin, that in the rock tombs of El Medyeh would be found the Maccabæan mausoleum. It is only fair to add to the above the archæological paper furnished by the Rev. Greville Chester to the "Recovery of Jerusalem."

Steps have been taken, during the past autumn, to set on foot an independent American Association, in alliance with our own, with precisely similar objects—viz., the scientific examination of the Holy Land. The Committee have to record their thanks to the Rev. Henry Allon and the Rev. Dr. Mullens for their services in acting as the medium of communication between our Association and those interested in our work in America during their late visit to New York. It was at first proposed that the new Association should take the form of a branch, but on further consideration our American friends decided on forming a separate Society. The communications between the two bodies have been conducted in the most friendly spirit, and the remarkable interest always shown by the Americans in this work, leads to the hope that excellent results will follow the foundation of their Society. It is hoped that the joint action of the two Committees will be laid before subscribers in the next *Quarterly*. The delay which the receipt of this important intelligence has naturally caused in the plans of the Committee is less to be regretted as the circumstances of the time have not of late been favourable for soliciting donations.

The following is the list of the American Committee, as at present received:—Rev. Dr. Joseph Thompson, Chairman; Revs. Dr. Washburn, Durbiss, S. Hitchcock, H. B. Smith, Budington, J. Cotten Smith, and Thompson; Professors Kendrick, Hockett, Ed. Park Day; Rev. J. Stuart Dodge; Messrs. James Stokes and Van Lennep, and, Secretary *pro tem.*, Rev. Dr. Crosbie.

Meantime, the stores, &c., at Jerusalem are under the charge of Dr. Chaplin. Captain Warren, to the great regret of the Committee, has found himself unable to return to Palestine, and has rejoined his corps. He has been occupied during the last six months in completing his work for the Committee, a considerable part of which has yet to be published.

The collection of relics, &c., brought from Jerusalem has found a temporary home in the South Kensington Museum, where it is placed in a room at the end of the Meyrick Armour Gallery.

The delay in bringing out this number of the *Quarterly* has been caused by the fact that the time taken in drawing and lithographing the accompanying map, with the numerous corrections involved in so important a piece of work, has proved longer by many weeks than was originally contemplated.

THE DESERT OF THE TÍH AND THE COUNTRY OF MOAB.

ST. JOHN'S COLLEGE, CAMBRIDGE,
December, 1870.

IN November, 1869, having but recently returned from Sinai, the Palestine Exploration Fund did me the honour to send me out once again to the East for the purpose of exploring the large tract of desert country known by the suggestive name of Bádiét et Tih, or "The Wilderness of the Wanderings," whither I had the good fortune to be accompanied by Mr. C. F. Tyrwhitt Drake, a gentleman who, in addition to a thorough practical knowledge of natural history, has been for years engaged in Eastern travel. I now beg to lay before you a statement of the results of that expedition:—

On the evening of the 16th December, 1869, we encamped at 'Aiyún Músá, and on the following morning commenced our journey.

We set off from Suez on foot; and as we expected to meet with difficulties from the Arabs amongst whom we were going, we took neither dragoman nor servants, and reduced our baggage to the smallest possible amount.

Our only escort consisted of the owners of the camels which carried our camp furniture and provisions, and these being changed from time to time as we passed from one tribe to another, we may be said to have performed our journey absolutely unattended and alone.

Our equipment consisted of the following articles:—

A tent 12ft. square, which, on leaving Jerusalem, was changed for one 6ft. by 5ft. and 5ft. in height. Two mattresses and blankets.

Kettle, pot, frying-pan, tin plates, knives, forks, and tin washing basins.

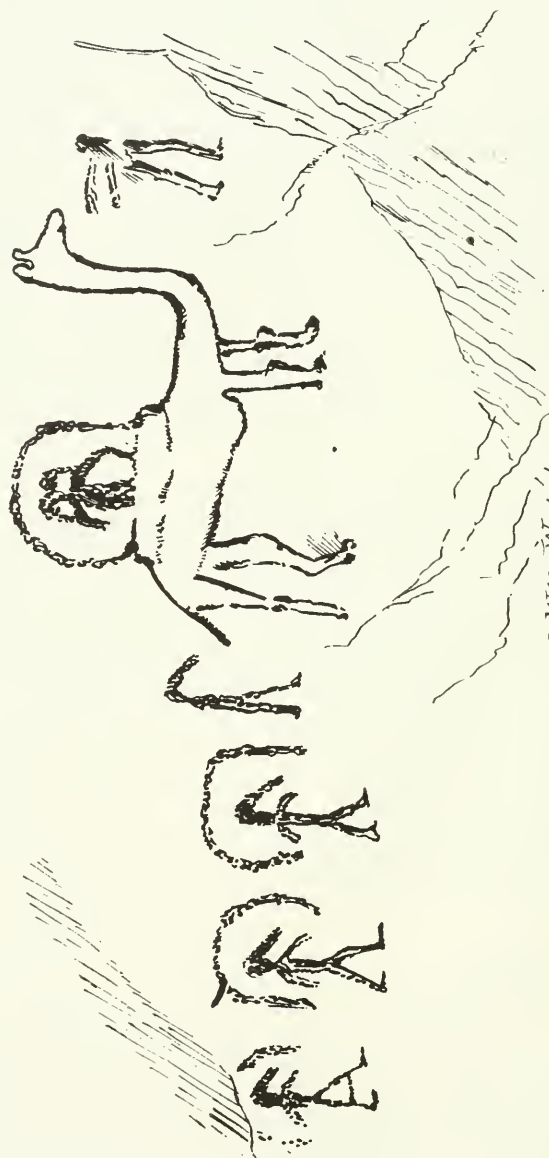
Tobacco, flour, bacon, onions, tea, sugar, Liebig's extract of meat, and brandy (supply for three months).

These, with our surveying and photographic instruments, clothes, &c., were carried upon four camels.

The first day's start is always a difficult one, as the loads have to be arranged and the geography of the store box has to be learned. It was therefore rather late when we got the camels off, after which we adjourned to one of the gardens, where Yusuf, the proprietor, entertained us with coffee and radishes; and, taking a final farewell of him and civilisation, we fairly started off into the desert. The day was very hot, but bright and pleasant. In Wády Merází we saw a heap of stones which marked the grave of one of the unfortunate Hajj pilgrims who are so often placed in quarantine near this spot on their return home from Mecca *viâ* Jeda and Tor. As we came through Wady el Ahtha we found that the soil at a particular spot had been recently turned up, disclosing a fine soft clay beneath the surface. This clay contains a great deal of salt, to obtain which it had been dug up by some passing Arabs.

Striking down towards the seacoast we came to Bir Abu Suweira, a little pool of very fair water. The road here and down Wády Amárah lies over a most unvaried, flat, and uninteresting desert. Near the well were some Terabín Arabs' tents, and we met a party of the men there who had gone for water. There is no other water but this in or near Wády 'Amárah. This is an important point, as the supposition that water did exist there, taken in conjunction with the sound of the name, has led some persons to identify this spot with the Marah of Scripture. The country immediately around the well consists of low hills of mounds covered with scanty desert herbage. Our camp was in Wády Makwan Hamádhah, which, as the camels went by a shorter path, we did not make till past sunset. All day we had a strong wind and a most unpleasant, blinding sandstorm. As we had determined to explore Wády Wutáh, and the pass was said to be a difficult one, we allowed our sheikh Hassan to go on with four of the camels and wait for us at Serábit el Khádem, while we ourselves took only the dromedary and one camel lightly laden with provisions for four days, and at twelve o'clock we began our route sketch.

The survey made by the officers of the Sinai Expedition, and the previous researches of Mr. Holland, had left no part of the Peninsula of Sinai unexplored but the district lying at the head of Wády Gharandel and that immediately beyond 'Ain Hudherah. As a knowledge of these tracts of country was, however, important to the completion of the map, and especially to the accurate delineation of the outline of the cliffs which form the edge of the Tih plateau, we determined to commence our explorations from the southern side, in preference to following the usual route from Egypt taken by the Mecca Pilgrim Caravan, and which crosses the flat and perfectly uninteresting



desert to the west of Nakhl. Taking up the work at the point where Captain Palmer's reconnaissance ends, we made the route sketch of Wády Wutáh, of which I had the pleasure to forward a tracing to the Society, and which, I understand, has been incorporated into the maps of the Ordnance Survey. In this and all subsequent surveying operations we made use of the prismatic compass, and in order to avoid any inaccuracies, we laid down all angles with a graduated ruler and protractor on the spot.

The head of Wády Gharandel is a broad space broken up by sandhills, on the top of which we found many tracks of gazelles, bedan bustards, &c. At one part of the road was the vestige of a recent fire, and near it were the charred bones of a camel. The Arabs declared that, a little while before, a pack of wolves had attacked and killed a camel at this spot, and the owner and his friends coming up, frightened away the beasts and cooked and eat the carcass. The wády, after a few hours, narrows slightly into the Seil Wády Elseifeh, where we encamped.

In the morning we continued our route sketch. At the entrance to Wády Wutáh are some fine nawámis and a zigzag path up the mountain side leading to a sort of cave or gallery which the Arabs still make use of as a shelter in rainy weather. Wády Wutáh at this part is narrow and winding, and filled with boulders and the *débris* of former seils, which have evidently swept at different times with considerable force through the valley. We stayed to rest about one o'clock under a cliff where is a curious natural cave and some inscriptions consisting chiefly of figures of animals, amongst them a curious procession in which the figures bear a strong resemblance to the ibis of the Egyptian hieroglyphics. A little way from this we passed the tents of Silmán, the 'Agýd, or military general of the 'Aleygát tribe, who asked us politely in to have coffee, but we were too much pressed for time to be able to accept the invitation. The wády continues very winding, and is broken up with boulders and long spurs of the mountains running at short intervals into its bed. At one point in the valley the mountains come down into rocks, about fifteen feet high, meeting in the wády bed, with a path not more than a yard and a half wide between them. About an hour from our last camp was a little spring on the right-hand side, in a narrow ledge of rock, with a few stunted palm-trees growing by its side. A little farther on the wády widens into a circle which has been washed out by the seil, or flood, and shortly afterwards goes through a fine pass about twenty feet wide between sandstone rocks. At four o'clock we encamped at the head of Wády Wutáh, the continuation of which winds round into the mountains again, being called Wády Umm Dúd. Close by our camp were the tents of Khamís, the sheikh of the Ezmeileh, a branch of the 'Aleygát Arabs. He came down to meet us in the valley, and when we had encamped brought us a sheep as a present, for which we gave him two rupees. The sheikh himself acted as butcher; its kidneys, heart, and liver made an excellent dish, though we regretted that we had neither bacon nor onions to fry

with it; but old Salem supplied the deficiency by cooking it with salt water in lieu of fat. In accordance with the rules of Arab hospitality, the sheikh accompanied us the best part of a day's journey, and guided us up a ravine called Tel'at umm Rûtheh. It is a narrow, winding ravine, with one or two grand gorges, and here and there a rather difficult piece of climbing. About an hour took us to the top of the pass, the camels coming by a somewhat easier way a little lower down. The pass down into the plain, or rather valley, Rás Hamr, is a very steep and difficult one. A long and tiring march brought us to Serábit el Khâdem some time after nightfall. The next morning we sent the camels on to camp in Wády Khamíleh, and went ourselves up the mountain by the ravine above the camp. Here we spent the morning in examining the ruins and scraping about for curiosities, and reached camp about half an hour before sunset. The next day, being Christmas Day, we determined to remain in camp, and accordingly spent the morning in sketching. A monk passed us on his way to Cairo, and stayed to have a few minutes' conversation in bad French. Then came a great excitement, Haméd, one of the camel men, having discovered a snake; it turned out to be a cerastes, and Mr. Drake promptly seized it with a forked stick and put it into spirits. After a chat over the camp fire with the Arabs we went to bed, having spent a very pleasant Christmas Day.

Passing through Seil Barg and Wády Lebweh, we came to Erweis el Arneb, just below Zibb el Baheir, where we encamped. Having ascended the last-named mountain to enjoy the magnificent prospect from the summit, we entered Wády Berráh, and turning down the wády to the left, visited the springs at Erthámeh, which are situated in a very pretty and romantic granite glen, and camped, after a long day's march, at the Tarfah grove in Wády es Sheikh, having passed several Russian pilgrims on the road.

On the 28th December we reached the Convent of St. Catherine, and as the superior was "at home," succeeded in gaining admittance to the archbishop's apartments, in which the most valuable part of the MS. treasures are kept, and inspected some of the most important ones. The well-known Codex Aureus is a beautifully-written copy of the four Gospels, containing illuminated portraits of the Evangelists and other sacred personages. It is attributed to the Emperor Theodosius, the Colophon giving the date and transcriber's name in the abbreviated Uncial characters. A collation of this manuscript would, doubtless, prove of great value in determining the accurate text of the Gospels, although the date, A.D. 1413, which is assigned to it, is not sufficiently remote to give it any very high authority. A person exercising *tact*, and remaining sufficiently long at the Convent, might copy, and, perhaps, photograph every leaf. I endeavoured to impress upon the monks that no other design prompts an investigation of their books than that of benefiting sacred literature by a description of the works in their possession. There are other very interesting works in the collection, amongst them an ancient copy of the Psalms

in Georgian, written on papyrus, and a curious copy of the Psalms in Greek, written in a minute female hand, on six small pages, but without a date. Amongst a pile of patristic and other works of no great age or interest, are some curious old Syriac books and one or two palimpsests. Our necessarily hurried visit prevented us from examining these with any great care; but they would, no doubt, well repay investigation. The proximity of the Convent to civilised parts, the frequent intercourse of the monks with European scholars and travellers, and more especially the renown of the Codex Sinaiticus, are causes that militate strongly against any chance of procuring much of bibliographical interest from the Convent of St. Catherine, beyond the possible results of a thorough examination of the library.

From Jebel Músa we proceeded to 'Ain Hudherah, and commenced the survey at the point where Captain Wilson and myself had retraced our steps on the occasion of our former visit. As this point has been determined by the Ordnance Survey, the whole of our subsequent work is connected with that of the Sinai Expedition by an unbroken series of compass bearings, and as these, after extending over upwards of 600 miles of country, show an almost inappreciable error on subsequently joining a place the latitude of which has been ascertained, I may venture to say that the accuracy of our observations is to be depended upon, and that our map exactly represents the geographical features of the country.

I have already, in previous communications, adverted to the curious remains at Erweis el Ebeirig, near 'Ain Hudherah, which I then believed to be relics of an Israelitish camp. Our second visit on this occasion entirely confirmed this supposition, and the further discovery of what were undoubtedly tombs outside the camp seemed to point with still more certainty to the identification of this spot with Kibroth Hattaavah, the scene of the dreadful pestilence described in Numbers xi. 31. The distance from Jebel Músa on the one hand, and from 'Ain Hudherah on the other, exactly corresponds with the position of Kibroth Hattaavah relative to Mount Sinai and Hazereth, as given in the scriptural account; and the discovery is therefore not only important as confirming the opinion set forth by the Sinai Survey with regard to the position of the Mountain of the Law, but as enabling us to trace the route by which the Israelites left the Peninsula of Sinai for the scene of their Forty Years' Wanderings.

The situation is a most commanding one, and the hill-sides and more elevated portions of the watershed are covered for more than a mile in every direction with curiously arranged stones, evidently the remains of a large encampment; but differing essentially from any others that I have seen in the country, whether Arab or otherwise. The larger inclosures occupied by the more important personages, the hearths or fire-places, &c., are still distinctly to be traced. The extent of the remains, indicating the assemblage of an unusually large concourse of people, and above all, the curious story of the lost Hajj

caravan, all tend to confirm the supposition that we have here really a vestige of the Exodus.

Some distance farther on we came to some well-built, regular *nawámis*, on a sandbank, at the bottom of which was a rude wall. This seems to have been used as a fort, a conjecture strengthened by the fact that there are a fair number of flint arrow-heads and flakes lying about. About half-past three or four o'clock we reached Hudheibat Hejáj, where we found the tent pitched; but as we had told Sheikh Hassan to encamp near the Shagíf, we made him pack up again and proceed to the appointed spot. We then went up to the cleft, and were as much struck as before with the beauty of the prospect, although the light was not quite good enough to bring out in all their perfection the lovely tints of the rocks and mountains. We ascended the hill to the right side of the cleft, on the top of which is a well-built, oval erection, evidently used as a beacon in former times, and apparently, one of those posts which gave the present name to the spot, Matáli Hudherah, "The look-outs of Hazeroth." There are many Greek and Sinaitic inscriptions on the neighbouring rocks, which I imagine were written by the soldiers and sentries once posted there, as one or two have the word *στρατιωτης* after their names. The spring itself, 'Ain Hudherah, was once undoubtedly a monkish colony; the old walls, the well-made aqueduct, the religious inscriptions, and the legend of the Báb er Rúm, or "Greek Gate," all point to this fact.

Our next object was to determine the connection, if any, between 'Ain Hudherah and el 'Ain el 'Elyá. We found that a communication does exist between them; but the road is impassable for camels; but as there was also another road beside the one already known, we determined to follow it and approach Jebel el 'Ejmeh (the point at which we intended to enter the Tih) from that direction. The camels had been sent round to Seil Hudherah, and as we came down by the Shagíf we saved some four or five hours, [which time we spent in sketching by the Palm Grove. At about half-past three o'clock we started, began our route sketch, and camped immediately above the place where Wády Ghazáleh comes in (the camel track), at the meeting of several wádies. The country begins to show a rather different formation from the sandstone mountains and sandy plains through which we had been passing for the last day and a half; the valleys are very distinctly marked, and the rocks at the side consist of green stone, with an overlying stratum of sandstone, which has been denuded off in all save the high and sharp ridges and peaks. The sides of Wády Hudherah itself consist of detached mountains, which give it the appearance of being broken into numerous side wádies. Our road lay up Wády Elt'hí, a broad valley with a steep rise of nearly 1,000 feet; the wády on the other side of the watershed takes the same name, an unusual circumstance in Arabian nomenclature. Passing over this watershed, through a narrow nagb, or pass, it again widens out into a broad valley, and flows down into Wády el 'Ain. A little way down the latter valley, and at the mouth of

Wády 'Arádeh, we came across some of the Haiwátt Arabs, a boy and two old women. The boy brought a lynx skin (which he called a wild cat), and sold it to us for three piastres. He was extremely astonished at our knowing the names of the wádies, and screamed out with delight to tell the old woman of our wonderful information. She at once proceeded to try and turn it to account, by asking us if there would soon be rain; and began to expatiate on the misery to which the drought was bringing the Arabs. When we told her we hoped there would be, but could not tell, she seemed very incredulous, and muttered that she had always understood that rain was in the hands of the Christians. We then tried to bargain with them for a lamb, but could not come to terms, as they refused to take 1s. 6d. for it, and we were not disposed to give any more. This and other loitering upon the road made us so late, that we had to do the last mile or so of route sketch in the dark, lighting matches to read the angles by. Just before we reached camp, a Terbání Arab, whom we had met at the early part of the day, overtook us, accompanied by his father, and bringing a bedan for sale. These two insisted upon their prerogative, as the rightful owners of the soil, to conduct us instead of the Emzaineh Arab whom we had brought with us as guide, and the latter had to go back, the hunter coming with us on the same terms.

We offered five francs for the bedan, which was accepted with wonderful cheerfulness, and we found, from Sálem later on, that the Arabs were not disposed to offend us, or to dispute anything we might say, *lest we should stop the rain!* A dog was loitering about the camp with a string tied tightly round his stomach, so that he should not eat too much. The wády just below our camp began to be very winding, and continued so as far as a broad open place called the 'Agúláh, where there were some palms and water. After this it goes on in a straight line for an hour, then winds again for a little distance, and ultimately finds its way through a very narrow, winding gorge, with grand precipitous sides, into 'Ain el 'Elyá. Here is a spring of running water, with a few palm-trees, and the valley opens out into a large plain covered with hills and vegetation (palms and tamarisk trees), where we encamped.

Shortly after leaving this place we came to a group of nawámís on the hills to the left of the wády, which were more perfect than any we had hitherto seen in the peninsula. They consisted of two detached houses, on separate hills, and a group of five on the side of a higher eminence. The two first had been used as Arab burial-places; but at least three out of the five were apparently untouched. Their dimensions averaged 7ft. high by 8ft. in diameter, but one was fully 10ft. high and 8ft. diameter inside. They were circular, with an oval top; the construction is the same as that of the nawámís in Wády Hebrán, but the perfect condition in which they have been preserved exhibits, in a much more striking degree, the neatness and art with which they were built. In the centre of each was a cist, and beside that a smaller hole, both roughly lined with stones; these were covered with slabs of stone, over which earth had accumulated. Some human bones which we found in the cists at first led us to the conclusion that they

were tombs, but the small size of the cist, and the evident fact that they had never contained perfect skeletons, proved that idea to be erroneous. In the smaller cist the earth showed signs of having undergone the action of fire, and in one or two small pieces of charred bone and wood were found. The doors, which are about 2ft. square, are admirably constructed, with lintel and doorposts. All the stones used in the construction are so carefully selected as almost to give the appearance of being hewn, and those in some of the doors have certainly been worked, if not with any instrument, at least rubbed smooth with other stones. A flint arrow-head and some small shells were found in one of the *nawámís*. They are evidently dwelling-houses; but to what race they belonged I must leave to those who are better versed in the science of prehistoric man to determine; the remains are certainly some of the most interesting which I have met with in the East. The country all around is covered with them, every hillside having some remains of *nawámís* upon them; but owing to their exposed position they have none of them been preserved in so perfect a state as those just described. Close by the *nawámís* were some stone circles. There would seem to have been a large settlement of these people in the neighbourhood of 'Ain el 'Elyá. The word *námús*, plural *nawámís*, signifies mosquitoes, and is applied by the Towarah Arabs to any kind of stone hut, the origin of which is unknown, from the tradition which exists amongst them, that they were built by the children of Israel for a protection against the plague of mosquitoes sent by Heaven as a chastisement for their rebellion and sins. The other Arab tribes do not know the name, and call them merely *gusúr*, or castles.

A little above this point the wady broadens out into a wide plain, and on the left is an opening called El Magráh, which leads, by a journey of about half a day, to the Matál'i el Hudherah, (winding round the shoulder of a mountain called Jebel el Migairáh,) and also to the plain before Hudherah, called Rídhán Eshka'a; the road is, however, only passable for foot passengers. A chain of mountains divides Wády Hudherah and Wády el 'Ain, so that to reach the one from the other a journey of at least three days has to be performed, which, if this road were open, might be done in half a day. As we had lost so much time at the *nawámís*, we did not get into camp until nearly eight o'clock, very tired and hungry.

On January 10th we followed Wády Biyár, which runs broad and straight for about an hour and a half, when it turns off, leaving Wády 'Edeid (called on the maps Hadaiyid) on the left. This wády has its watershed on a shoulder of Jebel Dhallal, the other side falling into Wády Síq. On our way we saw many footprints of storks, which are called by the Arabs Erháí, made in the dry mud; they had stopped here in the course of their last year's migration from Syria to Nubia. The wády then bends and winds until, after passing through some hills of conglomerate, it leads to the wells (Biyár), from which it receives its name. These are three or four deep wells of rather dirty water, for flocks and herds have used the troughs for centuries, if we may

judge from the accumulation of dirt and dung. Over the mouth of some were placed large stones, closing them up; others had the stones removed; the whole formed a striking illustration of the passage in Genesis xxix. 7—9: "Till they roll the stones from the well's mouth; then we water the sheep." Thunder rolling, throughout the whole afternoon, forewarned us that rain was shortly going to set in, but we luckily reached camp by four o'clock, and had therefore time to dig a trench round the tent and take all necessary precautions against the storm. Presently it began to rain steadily, and in the course of the evening poured down in perfect torrents, a seil, or flood, taking place in the neighbouring wády. We were also awakened, in the middle of the night, by a tremendous downfall of rain, which poured over the tent as though fire-engines were sluicing it. As the next morning was still stormy, and rain was constantly falling, we were unable to continue our march, and therefore stayed in, to work up our maps and journals. A little while before sunset we went out to look at the stone circles which exist in large numbers around the spot. They have for the most part a heap of stones, like those of Jebel Hadid, forming the tomb, and an open small enclosure, or cist, apparently used for sacrificial purposes. On opening one or two of these we discovered a quantity of burnt earth and stones, mingled with pieces of charcoal.

As soon as the weather would permit, we went on up the valley, which here takes the name of Wády Mirád, from the watering-place (Biyár) to which it leads, and reached Jebel el 'Ejmeh, at the foot of which is a large plain covered with rolling hills, and intersected by small wády beds. This part is covered with nawámís,—large stone circles like those near our last camp, but more perfectly preserved. A little distance from these are the remains of a large settlement surrounded by walls from three and a half to four feet high. The ground-plan of the enclosures could be very plainly perceived. These stone circles at the foot of the Nagb el Mirád are of a different character to the carefully constructed dwellings in Wády el Biyár. They consist of a collection of circles with rudely-heaped walls, and are probably traces of camps, a conclusion to which we were led by having observed similar enclosures in use at the present day on Mount Hermon. There similar low rude walls were found, into which branches of acacia and other thorny trees were inserted, thus forming an impassable barrier. In the *dowárs* of Morocco a similar contrivance is made use of for protection against robbers and wild beasts, for which purpose the low walls alone would be useless. We next ascended Jebel 'Ejmeh by the pass, not a difficult one, but never before known to European travellers. From the top the view of Sinai was very fine, although clouds hid many of the principal distant mountains from our view. The first glimpse of the Tih, however, which we got from the same point is anything but inviting, consisting simply of round featureless hills or tumuli, with small winding wádies between. One is exactly like the other, and, as they are all on the same dead level, there is not anything to vary the monotony

of the scene. We camped not far from the Nagb, and, taking our instruments with us, proceeded up the mountain to take observations. The name Ejmeh may be a corruption, or rather Arab adaptation of the Hebrew Ijim (as in Ije Abarim), a word signifying *tumuli* or round featureless hills, a description which would exactly correspond to any part of the prospect to the north from Jebel 'Ejmeh. There is an abundance of dark-coloured herbage all about, the *firs*, a kind of 'ajram, and the *gataf*, a fleshy-leafed plant with a somewhat pleasant acid taste, not unlike sorrel, and used by the Arabs as food.

Early the next morning we proceeded to the highest point of Jebel el 'Ejmeh, where there is a cairn or námús apparently of great antiquity. From this we took bearings, boiled the hypsometer, and read the aneroids, sketching in all the country that lay within the range of our vision. The view to the south is a very fine one, an immense expanse of low sandstone mountains, intersected by winding valleys, and forming a large plateau on a lower level, between this and the Sinai mountains: to the west it goes off into a plain. The horizon is skirted by the different groups of Jebel Feirání, Jebel umm 'Alowi, Jebel Catarína, Tarbúsh, and Serbal, and the long ridge of Jebel 'Ejmeh itself extending to our right and left. The reading of the instruments were: aneroid, 25·68 (mean); hypsometer, 204·10; thermometer, 51. On the plains, or rather hill-tops and small plateaus beneath, we noticed many remains of nawámis, dwellings, and cemeteries. Jebel Catarína and the mountains of 'Akabah were covered with snow.

Jebel el 'Ejmeh has been proposed as a possible site for the scene of the revelation of the law instead of Jebel Músa; but I do not consider either the mountain or the plain adapted for the events of the Bible narrative. The mountain is not an isolated block, but a long ridge, or rather cliff, forming the edge of the Tíh Plateau, while the plain is an irregular rolling surface, and ill-suited for the encampment of a large body of men.

Proceeding the whole day through the same monotonous round hillocks, we reached the point where the Wády Rawág widens out and is joined by Wády umm Girsúme, near which we encamped. There were still some clouds hanging about, and the bright red lights and delicate rose tints of the afterglow were finer than I had seen even in Egypt. Nearly every hill had a námús or stone circle on the top.

The wády above our camp was about two miles wide, and continued to broaden out,—long, low limestone ridges taking the place of the rounded hillocks through which we had been passing, and at last it became almost lost in a large plain of soft gravelly soil covered with coarse flints. From a sort of mound on the centre (there are two or three, under one of which we encamped) we could see a line of white hills exactly resembling tents, and called Al Kheimatein. Near these is situated Nakhl, and beyond is seen the shadowy outline of Jebel Yeleg. For another day we travelled over the same uninteresting,

featureless plain, when one of our men overtook some Arabs whom we had noticed ahead of us. They told him the route, for we had lost the way, and we followed, and ultimately overtook the Arabs ourselves in the neighbouring wády, Wády Ghabiyeh. It proved to be the nephew of the sheikh of the Teyáheh, a very picturesque person, who was travelling back to Nakhl with his wife, having been to get his tents, &c., from his storehouse by Jebel el 'Ejmeh. They were encamped near the water, which, as some rain had recently fallen, was plentiful in the valley, and desired us to stay there too; but as we preferred pushing on, our Teyáheh friend packed up his goods and chattels, and came with us.

On January 17th we arrived at Nakhl, accompanied by the Teyáhah family and some goats, kids, and children, perhaps as disreputable a caravan as ever entered the place. Nakhl is a wretched square fort in the midst of a glaring desert plain, the picture being backed up with some rather pretty limestone mountains. On the hills we found a great deal of Iceland moss growing. At the fort we were received by the captain of the guard, a dark noseless Arab, and presently the Effendi himself, the Názir, joined us, and we drank coffee with him and smoked pipes on the great divan at the end of the hall, a very motley crowd sitting upon the floor in the centre. None of the soldiers were in uniform, and they were as scoundrelly a set as one could well conceive; but the scene was a most amusing and interesting one, being thoroughly Oriental in every respect. We pitched the tent, and after dinner there came a man from the fort saying that the Názir had insisted upon our having a guard of ten men round the tents, but going up to the fort myself, I reduced the number to four. Presently the sheikh of the Teyáhah came in, accompanied by his brother, and talked till midnight, a crowd of ruffians sitting around the door and making the tent dreadfully hot and our heads ache with their noisy talk. After some difficulty we came to an understanding with them, and they agreed to take us all over as much of their country as possible; but arrangements were not concluded without considerable trouble, and, indeed, some 'risk; and much time was consumed in noisy altercation, and in resisting their attempts at extortion and intimidation. The greatest caution and firmness are necessary in dealing with them, and every point is contested with equal obstinacy on both sides; but, having once signed and sealed the contract, we had no hesitation in committing ourselves to their good faith; poor old Salem, our Sinai Arab attendant, was, however, so much impressed with their violence that he forthwith decamped to his own more peaceful mountains, and we had the additional trouble of cooking, washing, &c., thrown on our own hands. The scene at the fort, where the contract was written out and signed, was again a curious one. Mr. Drake and I were seated on a divan at the upper end of the hall, or rather gate, the Effendi on a chair beside us, the captain of the guard on our left, and next to him the sheikh of the Teyáhah, his brother Suleimán, and Sheikh Hassan, our

former employé. The latter, notwithstanding the presence of the Effendi, indulged in the most impolite language against the Egyptian soldiery generally, because the garrison had impounded one of his camels for a debt owing to them by some of the Towarah. At every turn Sheikh Mislih or his brother tried to cheat us, but we were always on the look-out, and had our contract written according to the terms we had originally proposed and agreed upon. We next dismissed the Towarah, poor old Salem amongst them, and made our dinner ourselves, assisted (or rather hindered) by the wretched scoundrels who represented the Egyptian army about our tent, and for a little time enjoyed some quiet. Mislih, the chief sheikh of the Teyáhah, was not only independent, but rude and obtrusive in demeanour; his brother Suleimán was a very intelligent man, but alternately surly and communicative, and to manage them was by no means an easy task.

At last, on January 20th, 1870, we were fairly started with our Teyáhah guides; and toiling over the same level desert, struck Wády Erwág, which here comes in between the two tents (Kheimatain), and joins Wády el 'Arish south of Jebel Yeleg, near which we encamped. The Arabs, not being able to pronounce our names, at once dubbed me 'Abdallah, and Drake 'Alí, and the names clung to us during the rest of our sojourn in the desert. In the evening, Suleimán came in to have his usual chat, and told us of some ruins in Gureiyeh, which we determined to visit. He said—"We never let travellers see anything, but make them march straight on. If we were to say there are ruins here or there, the traveller would have to call the dragoman; the latter would grumble at the trouble, and whatever the traveller gives, the dragoman keeps." One of our men had his finger and thumb cut off last year in a marauding expedition, and our Sheikh Suleimán ibn Hamd ibn 'Amir, also says that if he had not been with us he would have been off towards Syria after plunder, while his brother was attending to the Hajj. As soon as the tent was pitched, a sudden storm came on, sand filled the tent, and was immediately followed by a heavy fall of rain, which continued at intervals throughout the night, accompanied by vivid lightning. When we opened the door of the tent next morning heavy clouds were lowering over the horizon, but as the sun was shining we determined to march; the Arabs, however, were so long in loading that it was late before we got off. After walking for about half an hour we came into Wády el 'Arish, which comes down from the Rás Emraikkeh on the north side of Wády Síg and flows past Nakhl to this point, where it is joined by Wády Erwág and flows down to the Mediterranean. The journey was along a level plain with occasional wádies, small tributaries of Wády el 'Arish, their course being marked by a line of desert vegetation and here and there cut up into deep furrows and channels by the water. In a jorf (steep bank), in Wády el 'Arish we found small shells and charcoal, and in one place the remains of a wood fire, and even the stones of the hearth, at a depth of eight feet below the surface. When we had reached this

point we were overtaken by a heavy storm of rain, and were soon completely wet through. Passing by the two branches of Wády Abu Jizl, we came at last to Wády el 'Aggáb, where we were again caught in a storm, and had to pitch the tent amid a drenching shower. This spot has some very well preserved specimens of stone heaps and circles, similar to those which we remarked in Wady Biyár. One which looked like a grave we opened, but could find nothing but burnt earth, which seemed to indicate the fact that the body had been burnt, and these stones with the circle round them heaped up to mark the spot. No one, the Arabs declared, had visited these ruins before. They told us also of some others, about a day and a half this side of Nagb Mirád, to the west of our path, where there is "a white mountain" (*Taur Abyadh*), and several caves, with thick pillars, excavated in the rock, and great heaps of stones and "camps" (*mahattát*) in front of them. It would be simply impossible for travellers not knowing Arabic to travel in this country off the ordinary route, and even we were obliged to humour them considerably. Bullying does no good, and one has to appeal to their word and promises, and to promise in return. An expedition would have great difficulty in working here, and could not do it unless one of the party were perfectly acquainted with Arabic and they had large funds at their command.

In the morning we went out to look at the nawámis, or, as these Arabs call them, *mahattát* (i.e., camping-grounds). Suleimán came into the tent and suggested that we might go by ourselves and do as we pleased, a great concession from such a tribe as the Teyáheh. In the same way, when we came back one of the men picked up our *fás* and crowbar, and said, in a very suspicious tone, "Look here, Suleimán, they've been digging!" "Well," said he, very curtly, "what if they have? What do you suppose they came here for?" The ruins are simply cairns, with only one stone circle amongst them. They extend for a great distance around, and number nearly 100. We opened the stone circle and found charcoal and burnt earth in what we have called the sacrificial area, but nothing at all in the central cairn. We also opened one of the largest of the cairns, but although we dug down in the middle of it to the depth of five feet and came to the solid rock, we could find no trace of a burial. The same thing had happened to us in Wády Biyár, we could find the burnt earth in the small enclosures, but never any trace of the skeleton, as in those on the granite soil of Sinai. This I attribute to the action of the lime, which would, no doubt, in such a length of time as must have elapsed since they were constructed, have assimilated the lime in the bones, and so destroyed all traces of the sepulture. Whatever the people may have been, whether Amalekites or an older race, it seems nearly certain that they buried in cists, piled great cairns on the top, surrounded the whole with a stone circle in the case of more important personages, and offered sacrifices to the deceased in small open enclosures situated within the ring. These may probably have been the

"offerings to the dead," the eating of which was accounted so great a sin to the Israelites. The custom still survives in the offering up of sacrifices at the tombs of welis (or sheikhs), *i.e.*, saints. I believe the only sacrifice permitted by the Mohammedan law is that at the Hajj, but the ceremonies there observed were retained, no doubt perforce, by Mohammed, who would have been unable to induce his people to give up rites so time-honoured as those appertaining to the Kaabeh at Mecca. The size of the largest cairns was about twenty feet in diameter (the shape being circular) and the height about four feet. We found a piece of coral by one of the heaps. This collection of stone remains is called El 'Uggábeh.

After Wády 'Aggab the desert again preserves its unvaried and barren character. Here and there, as we crossed the bed of some small wády, we saw a few shrubs, but they were always the driest and scantiest of desert herbage. The only living things we met with were some locusts, one raven, and a desert lark. Forty minutes from camp we came to a low pass called Rás Fahdí, a descent of 100 feet from which brought us into a broad plain narrowing slightly into a wády of the same name, Wády Fahdí, so called from a saint whose seyál tree stands there. By this valley, just at the corner of Jebel Ikhríum, are several small stone heaps, and a line drawn with a stick or spear in the flint-covered gravel which years have not yet effaced. These heaps mark the graves of Arabs who fell in a fight which took place here between the Beni Wásil, a branch of the Towarah tribe, and the Dhallám, or Arabs of Tell 'Arád. The former had made a raid into the Towarah country and carried off a herd of camels. The Beni Wásil started in pursuit and caught up the marauders at this spot, when a fierce encounter took place, many men falling on either side. At last, neither party gaining any decisive advantage, they agreed to a cessation of hostilities and a compromise; the chiefs on either side drew this line upon the ground, saying, "God has drawn a line between you and us," and half the camels were driven off by the Beni Wásil, and the other half taken back to Sinai. A girl named Suleimah had come with her family from Sinai to follow the fortunes of her friends; at the instigation of her companions she sat upon the long low ridge called Towalíyeh and watched the progress of the battle. The spot whereon she sat is marked with a rather larger heap of stones; and a verse of poetry, in which the request that she would go up and look on the fight was couched, is still remembered by the people. From the pass a very good view is obtained of the mountain district with Jebels 'Araif, Es Sharaif, &c. As the men were obliged to go back from this point to Wády el 'Arish to water the camels, we stayed in camp and did up the map. A sandstorm was blowing all day, which filled everything with dust and obscured even the nearest mountains. On January 26th we started again. A few minutes after leaving camp we came to Wády Garaiyeh—a very broad level valley which stretches on one side right up to the base of Jebel 'Araif, and along this we went until

we found some water which had been brought there by the late rains. In order to take advantage of this we were obliged to encamp at some retem bushes near which the water ended. Feeding here was a herd of more than 150 milch camels. The next day came another dense sandstorm and the weather was very hot and oppressive. The march was a most dreary one, as it was impossible to see more than a few hundred yards ahead, and the scene was as truly desert and desolate as can well be imagined. On our way, an old Arab, named Músa, the proprietor of the ruins which we were going to see, met us, and hearing that we were bound for his dwelling, became anxious about the rain for his crops, and begged Suleimán to camp short of the Contelleh that night, and take us past it without stopping. Suleimán replied that he had promised to take us, and take us he would, and that if Músa made any disturbance we would camp right in the middle of his field, and bury therein a piece of paper written with such magical characters that whenever the rain did come it would turn off to the right and left, and never moisten the soil, and that we would put some stuff in his wells that should effectually prevent any water from coming into them in future. This so frightened the old fellow that he gave in. After a short march we reached the scene of our explorations about noon. The place is called Contellet Garaiyeh; it is a white hill with a depressed top, the edges of it having the appearance of a mound surrounding the whole. This is found on digging to contain the *débris* of an old wall destroyed by fire. The Arabs said that they had dug up two large jars here, which were in such a good state of preservation that they still used them for water. We dug into the *débris* ourselves, and found some sun-dried bricks and beams of wood with signs of mór-tices, bolts, &c., which proved to be a sort of framework covering a series of large amphoræ, four of which we uncovered. One of these we dug out and put together; it was marked on the shoulder with a Phœnician aleph. The four jars were carefully fitted into a hollow or recess in the foundation of the wall, placed side by side, and closely packed with straw, ashes, and other rubbish. They were no doubt used as receptacles for water, as in the bottom of the broken one which we dug out we found a cake of clay exactly resembling the residue of the water of the country when it settles, and differing from the other dust and earth with which the jar was filled. The use of wood in the building was worth notice, as the pieces we found were of *seyál* (or shittim wood), and, excepting one on Wády Fahdí, there is not a single tree of the kind in the Tih at the present day. Indeed, the only tree we saw after leaving Sinai, besides the one just mentioned, was the *nebuk* or *sidr* inside the fort at Nakhl. In the afternoon we went to look at some wells which exist in the neighbourhood, but which do not contain any water except when a great rain brings a flood down the valley and fills them. They are four or five in number, but only two of any size or apparently very old. Husein, the sheikh of the Arabs in the neighbourhood, asked me to tell him whether there was not some well containing fresh water somewhere

about the neighbourhood. He said I ought to know, and if I did not, I might find out from some of our books.

On January 30th we started for Jebel 'Araif, but owing to the scheming of Suleimán, who would take the farthest way round, we were obliged to camp short of it that day. The journey was over a level plain, and perfectly uninteresting, a few stone circles and heaps being all that we could find. By two o'clock the next day we camped in Wády Máyin, at the foot of 'Araif. A little way from the mountain were some stone circles (tombs), and at the mouth of the wády the remains of what was once a large collection of dwellings belonging to the same people. They are so destroyed, however, by the seils as to be scarcely distinguishable at a distance from ordinary collections of stones. They form a striking instance of a city that has "become a desolate heap."

On preparing for an early start the following morning, we found some Arabs at the camp fire, who declared that we should not go up the mountain. Knowing this to be all nonsense, we returned curt answers to their impudent remarks, and left Suleimán to settle with them while we had breakfast. We then started off for the mountain, and after a stiff climb of about an hour and a half reached the summit. Our path lay along a steep ravine full of vegetation, and across a difficult shoulder of the mountain to the summit. The mountain consists of a series of jagged peaks of hard limestone, the strata being very much distorted, and having the appearance of a great upheaval. There are no fossils whatever, nor indeed did we see such a thing in the whole country. The observations taken from the summit were of great use to us in determining the lie of the country, and in correcting previous maps. For instance, the high cliff noticed by Dr. Robinson, and called by him Jebel Mukhrah, is not an isolated mountain like 'Araif, but the precipitous edge of an extensive mountain plateau called Magráh, which, though intersected by several broad wádies, runs northwards, without any break, to a point within a few miles of Wády Seba, where it is divided by Wády er Rakhmah from the mountains of that name. To the west of this plateau, and forming the eastern border of the desert of et Tih, are a number of lower mountain groups, amidst which the wádies which take their rise in the heart of Jebel Magráh meander on their way to the sea. This country is of course much more fertile than the open plain, and here it is that the interest of the region culminates, for here must have been the scene of a great part at least of Israel's wanderings, and here, if anywhere, we must look for the traces of many of the cities and towns of "the south country" mentioned in the Scripture records.

To the west one looks down upon the broad expanse of the Tih desert, the monotony of its level surface relieved by the ranges of Helál, Ikhrimm, &c., and to the south-west the large range of scattered hills which forms the head of Wády Guraiyeh. Into this valley all the drainage of the "mountains of the Azázimeh," runs. The rest of the view, namely,

to the east and north-east, is taken up with the immense plateau of Jebel Magráh, in the heart of which Wádies Mayín, Lussán, el 'Ain, &c., take their rise. At a point a few miles up in this mountain, where the Wády Ma'yín bifurcates, are the Biyár (wells) of Ma'yín, two in number, the water of which is described as being peculiarly good, and "sweet as the waters of the Nile." There are no ruins near the wells, or, indeed, in this valley at all, but a path, apparently ancient, consisting of eleven or twelve camel tracks, leads up to the water. From the summit of 'Araif you can just catch a glimpse of Jebel Shera, the mountains of the 'Arábah. There are several stone heaps on the various peaks and ridges of the mountain. A walk of forty minutes from camp brought us to the other side of Wády Mayín. Here, on the shoulder of the hill which divides it from Wády Lussán, we came upon some ancient remains, an enclosure of rude stones, like the dwellings at Biyár. The smaller enclosure at the upper end was doubtless covered in for the residence, and the other larger enclosure or courtyard served as the dower for the beasts and dependants. These are always on a hillside, or in some sheltered spot, while the tombs or stone heaps are invariably on the top or crest of a hill. The former, I should imagine, correspond to the *Hazeroth*, or enclosures used by the pastoral tribes mentioned in the Bible. A little farther on, and higher up on the intervening hills, is a high-road leading direct to 'Akabah, the course of it being marked by innumerable little heaps of stones stretching for a great distance around. Farther still are the Kharábát Lussán, or Ruins of Lussán, a great number of stone heaps, something like the ordinary cairns in construction, but not all quite circular, and built with more regularity. The Arabs have a story that a man of the 'Azázimeh, going across there one night, espied a light amongst the ruins. He at once proceeded towards the spot, and called out, "Who is encamping there?" but as soon as he had uttered the words the light disappeared, with the exception of a faint glimmer, and all that he could discover was a curiously cut stone still emitting a little light. This he took away with him in his flour-bag, and sold to a Christian in Jerusalem, who displayed great anxiety to possess it, and who gave him ten pounds for the curiosity. Descending into the valley of Lussán itself, we came upon long low walls of very careful construction, consisting of two rows of stones beautifully arranged in a straight line, with smaller pebbles between. One of these was 180 yards long, then came a gap, and another wall of 240 yards, at which point it turned round in a sharp angle with a gateway. The next was even larger, and here the object of the walls was at once apparent, as the enclosure was divided into large steps or terraces, to regulate the irrigation and distribute the water, the edge of each step being carefully built up with stones. They formed Mezárí, or cultivated patches of ground, and from the art displayed in their arrangement belonged evidently to a later and more civilised people. On the hill-side, a few hundred yards away to the left, were other ruins, a dwelling-house and granary. The former was as well constructed as a modern house,

and the disposition of the chambers, with a courtyard in the centre of the building, reminded me of a Pompeian villa. Various pieces of fluted pottery were found about the place. In a little ravine close by was a cave, which no doubt served for a store-house, for which purpose the Arabs use it now.

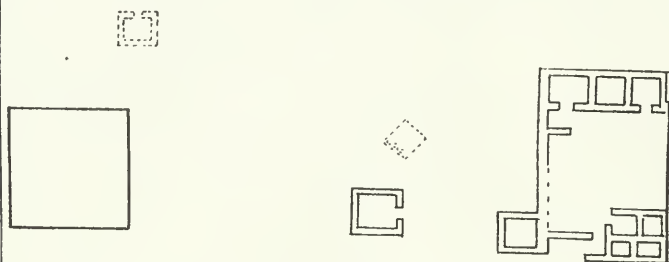
Here Wády Lussán begins to narrow, and presently debouches upon a large open plain, where it is met by Wády Jerúr and other smaller wádies, which take their rise in the plateau of Jebel Magráh. The view is a fine one, although the outlines assumed by the limestone are not very imposing, and the landscape lacks the beautiful colouring of the Sinai mountains. From the cliffs which bound the plain runs down a valley called Wády Gadís, from a spring of that name at its head, and the plain itself is undoubtedly the wilderness of Kadesh, perhaps the most important site in the region, as it forms the key to the movements of the children of Israel during their Forty Years' Wanderings.

The identification of Ain Gadís with Kadesh was first suggested by Mr. Rowlands, but he seems to have applied the name wrongly to 'Ain el Gudeirát, some miles farther northward, and not to have visited this spot at all. The Ain Gadís* discovered by us consists of three springs, or rather shallow pools, called Themáil by the Arabs, one of them overflowing in the rainy season, and producing a stream of water. It is situated about lat. $31^{\circ} 34'$, long. $40^{\circ} 31'$, three miles above the watershed of the valley at that part of the previously unexplored mountain plateau of the Azázimeh, where this falls suddenly to a lower level, and, as we found on subsequently passing through it, is more open, less hilly, and more easily approached from the direction of Akabah; and is thus situated at what I should call one of the natural borders of the country. I will explain what I mean by the latter expression.

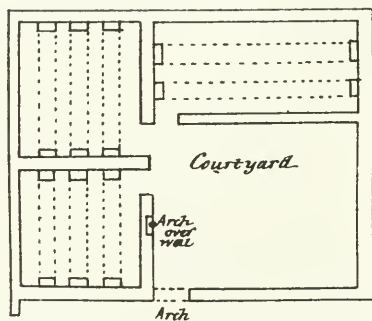
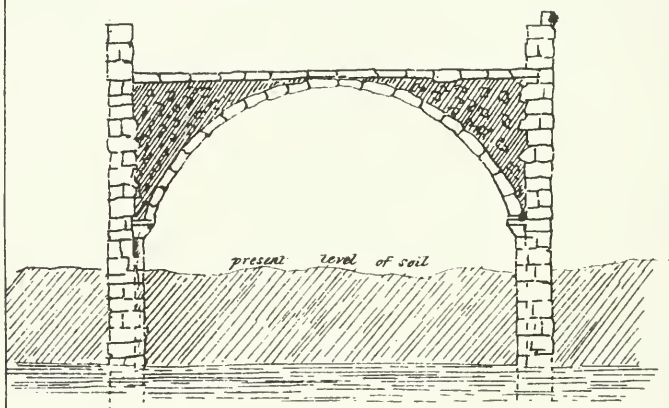
From Northern Syria to Sinai southwards the country seems to have certain natural divisions, marked by the comparative fertility of the soil of each. In Syria, at the present day, we have a well-watered and productive soil; in Palestine, after the Hermon district, the soil is much more barren, but must certainly at some time, when better cultivated, have been more productive; south of the mountains of Judæa, to the point immediately below which Gadís is situated, the country, though now little more than a barren waste (from the failure of the water-supply consequent upon neglect), presents signs of a most extensive cultivation, even at a comparatively modern period. This is undoubtedly the Negeb, or south country of Palestine, and 'Ain Gadís may be considered as situated nearly at the frontier of this district. Between this and the edge of the Tih plateau the country is even more barren, but there are still traces of a primeval race of inhabitants, in the cairns and nawámís, or stone huts, to which I have before adverted. At the time of the Exodus it must have borne a

* This word is in meaning and etymology identical with the *Kadesh* of the Bible.

Scale of yards.
5 10 15 20



Plan of ruins in Wady Lussan



Ground plan & Section of house
at S'baiza.

similar relation to the then fertile region of the Negeb, which that now barren tract at the present day bears to Palestine. This would exactly answer to the description of the Bible, the Israelites waiting as it were on the threshold of the southern portion of the Promised Land; and from the analogous recession of fertility northwards we may fairly conclude that the surrounding country was better supplied with water than it is now, and that it was therefore at least as suitable for the encampment of the Israelitish hosts as any spot in Sinai. But the spies went up from Kadesh and returned thither, bringing the grapes from Eshkol; it may be, therefore, objected that if Hebron be Eshkol, the distance from that to 'Ain el Gadís is farther than the grapes could possibly have been brought, especially by men who would have to pass through the country with so much caution as they must have employed in their character of spies. Now, it is a curious fact that among the most striking characteristics of the Negeb are miles of hill-sides and valleys covered with the small stone heaps in regular swathes, along which the grapes were trained, and which still retain the name of *teleilat-el-'anab*, or grape-mounds. It may be that we shall have to modify the existing theories concerning the position of Eshkol, and indeed I have no doubt but that it is to be looked for a short distance from 'Ain Gadís; but in any case I think that no *primâ facie* difficulty need be made of the relative positions of Eshkol and the Kadesh which I am now advocating. Dr. Robinson's theory that Kadesh must be sought for at 'Ain el Weibeh, in the neighbourhood of the passes of Sufâh and Figreh, immediately below the southern border of Palestine, does not seem a tenable one, especially from strategic considerations, for the children of Israel would have been confined, as it were, in a *cul-de-sac*, with the subjects of King Arad, the Amorites, the Edomites, and the Moabites completely hemming them in, whereas in the neighbourhood of 'Ain el Gadís they would have had nothing but the wilderness around them, and certainly no very formidable hostile peoples in their rear.

From the point where Wádies Lussán and Jerúr meet, and, passing through a small opening, debouch upon the plain, we crossed over into a wády called Seisab, and there encamped. Turning out of the valley, we continued to cross the plain until we reached Wády el Muweileh, at the foot of the mountains of the same name, where there is a spring which has been suggested as probably identical with Hagar's Well, though the orthodox Mussulmán tradition places the latter in the neighbourhood of Mecca. The wády itself is curious, as it is filled with small isolated jorfs, which would seem at one time to have formed the level of the wády bed, and to have been eaten out by the stream into its present form. There are a number of wells of the same shape as those at Biyár near the Nagb el Mirád, and overflowing with water. At the upper end of the valley, on the right hand, is a little cave carefully cut out of the rock, apparently a chapel, as there are signs of painted

crosses on the walls, and one or two Christian signs, mixed with Arab tribe marks, on the rock outside. On the opposite side of the wády is another cave, of much more imposing dimensions, and which seems to have served as the hermitage. It contains one large chamber, with three or four other niches in it, each large enough for a sleeping apartment. This is some eight or nine feet up in the rock, and is approached by a well-made staircase, tunnelled underneath. All the hills round about are covered with ruins, stone heaps of the same or similar character to those which we noticed elsewhere, remains of some primitive people, and extending for miles around. They exist for the most part on the hill-tops, the sides being covered with innumerable paths. One peculiarity about the place is that most of the hills have rows of small cairns, well built and arranged along their edges, so as in every case to face the east. Here and there also are larger mounds and buildings. It would appear that there was once a large city here, perhaps one of the "cities of the south," and that the early Christians regarded it as sacred, from some tradition attaching to the spot. Suleimán told us that in Jebel el 'Ejmeh, a little north-east of Biyár, there is an excavation in the mountain, consisting of a series of caves similar to those at Muweileh, and leading from one to the other by subterranean passages for a distance of nearly a quarter of a mile.

It is difficult to say what could have been the use of the rows of stone heaps on the eastern edge of this mountain, but I think it quite possible that they may have some connection with Baal-worship, and their position—facing the rising sun—seems to favour the supposition.

Both of the caves above mentioned, of which Mr. Drake took photographs, were evidently the residences of some hermits, and from the appearance of the rocks beside the larger ones it seems probable that there are still more of them there, but covered up with *débris*. One part of the rock has certainly been similarly excavated, and has a mark upon the top of the door, which is blocked up with earth; indeed, Suleimán said that he remembered it before it was so covered up with *débris*, and it formed, he was sure, the entrance to a cave like the others. Both have been used by the Arabs as store-rooms for alkali, which they obtain from plants by burning, and sell at Gaza and elsewhere to the soap-makers. The large cave measures about 12 feet by 8 feet, with chambers 7 feet by 4 feet, 5 feet by 4 feet, and 5 feet by 4 feet; the smaller, 8 feet by 4 feet. During our stay at Muweileh we were astonished by the sudden appearance of Selámeh, one of our old Towarah Arabs, who had come from Gaza with his father, having conducted some travellers to that place from Cairo. They came to the tent door, and we had a long chat with them.

In the valley are one or two dams, suggesting that there must, at one time, have been cultivation to a considerable extent, as well as more water in the neighbourhood. Up the mountain behind the camp, leading to some of the best preserved stone heaps, is a regularly built-up path.

On February 8th, Tuesday, we left Muweileh, and, proceeding up

Wády Guseimeh for about an hour and a half, encamped amidst a scorching, blinding sandstorm. On the hill at the foot of which our tent was pitched was a ruin—a sort of rude dwelling-house, but more carefully built than the ordinary enclosure, as the foundation walls were formed of two rows of stones, with rubble between. This the sheikh pointed out as the limits of the territory of the “old Christians”* of Wády el ‘Ain and Guseimeh, the limits of the Muweileh Nasará’s (Christian’s) country being a range of hills a little to the east of the mountains of the same name. There were also some water-springs near our tents, the ‘Aiyún Guseimeh, the position of which is marked by a melancholy-looking bed of rushes. They are not deep wells, nor springs proper, but a few *themáil*, or shallow pits. The neighbourhood of our camp, being at the confluence of Wády el ‘Ain, Wády Guseimeh, Wády es Serám, &c., was a large open space, interspersed with groups of low hills. The tops of the latter are covered with stone remains, but here present a new feature, pillars of stone accompanying the cairns and circles on the most prominent summits. An Arab of the Gudeirát tribe came up and abused us for stopping the rain! but at sunset the wind went down and a few drops fell, which entirely retrieved our character in his eyes.

Here also two caves form the principal object of attraction. There is one very fine one, about 43 feet long by 20 feet wide. It is apparently an old quarry, and has three large pillars supporting the roof, on the same plan as the Egyptian quarries. The roof has not been squared like the chamber walls, which would probably have been the case had it been intended for a dwelling. The second cave is merely a square cutting in the rock, without pillars. At the mouth of Wády el ‘Ain the hill-sides are covered with paths and walls, and the bed of the wády has strongly-built dams thrown across it, and is filled with *mezár’i*, or sowing fields. The surrounding hills are covered with innumerable stone remains. The view from any of these hills is very fine, the outline of the Muweileh, Serám, and Gaseimeh mountains being rather more picturesque than usual, and the prospect sufficiently extensive to be even grand.

Crossing over by the caves to the mouth of Wády el ‘Ain, we ascended a hill to enjoy the view and to sketch in some of the country round. This point being at the confluence of Wádies el ‘Ain, Serám, Sabh, and Muweileh, there is a large open plain with scattered ranges of hills, but it does not (as the old maps make it) form a break in Jebel Magráh, nor does Wády el ‘Ain itself come down *straight* from the heart of the mountain, but takes a curve round an outlying block. Wády el ‘Ain has been erroneously represented on the maps as a broad plain, which, running into Wády Murreh on the east, divides the Southern

* Christians is the name given by the Bedawín to the former inhabitants of the country in which they dwell, for they regard themselves as conquerors or immigrants from the peninsula of Arabia proper.

or Azázimeh mountains from the Northern mountains of the Negeb. Without dwelling upon the slight geographical difficulty of making two valleys, undivided by a watershed, cut through a mountain plateau, I will merely repeat my former remark that the plateau of Jebel Magráh stretches without a break from immediately above Jebel 'Araif to Wády er Rakhmah. It is true that Wády el 'Ain, being a valley of much greater extent than any of those previously mentioned, makes a large gap in the outline of the range; and as it is here that we first find traces of cultivation and ancient habitation on any considerable scale, the natural limits of the "Negeb," or "Land of the South," may well be considered to begin at or near this point.

The 'Ain el Gudeirát is situated about two days up the valley, and consists of shallow pools. In Wády Dammáth, one of the wadies intervening between this and Wády Serám, we put up a flock of bustards, but did not succeed in getting a shot at them.

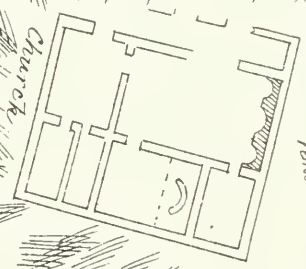
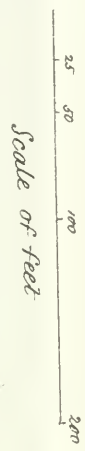
Three hours from our camp at Gaseimeh we reached Rás Serám, which we ascended. Here, as usual, we found an immense number of ruins (flat mounds, circles, and cairns) of the "stone period," covering the hills all around. At the base of the hill, too, were some pieces of cultivated ground like those at Wády el 'Ain, and two matamores (metámír), or pits for storing wheat, and near one of the latter was a threshing-floor. We camped in Wády Serám, where the sheikh came into our tent with a very grave face to say that the Arabs would not allow us to come near the ruins at Birein, as they were encamped close by them, and would, if necessary, prevent us by blows, adding that "they were terrible ruffians." We answered that any one who assaulted us would get a bullet through his head. "Then," said he, "they would kill us; we are only eight, and they have over a hundred guns." "Never mind," said we, "you know your brother is bound to carry on the blood feud if you are killed." As he had been for some time harping on the horrors of Birein and the Azázimeh Arabs, and had been sending emissaries with mysterious messages on to their camp, we shrewdly suspected that he had prepared a little row for our reception, in order to practise on our fears and extort a larger amount of money from us.

Early next morning we crossed the hills on the right hand of Wády Serám, and came down Wády Umm Ebteimeh into Wády Birein. The sheikh again pictured to us the horrors of going near the Arabs, but we insisted that it was all nonsense, as they dared not molest us through fear of a blood feud, and that, if they did, we would shoot the first man who touched us, and so involve him and them in a feud. At this he completely succumbed, and sent some one of the camel men forward to prepare for our reception. When we arrived at Birein we found plenty of Arabs encamped, but Suleimán changed his tone, and said, "Thank God, they are good fellows." Instead of molesting us, we found *them* in mortal terror of *us*, partly owing to the fact that (as we subsequently found) our men had been spreading about the report that

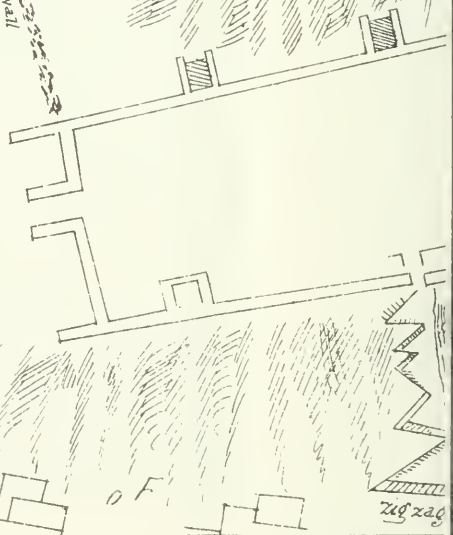
we were Turkish military officers. In Wády Umm Ebteimeh are terraces for cultivation and the ruins of one or two houses built of hewn stones. Turning into Wády Birein, a broad valley taking its rise in Jebel Magráh, we seemed to have moved suddenly into another and more fertile region. The broad valley was filled with verdure; grass, asphodel, and 'oshej grew in great profusion; flowers sprang beneath our feet; immense herds of cattle were going to and fro between us and the water (the wells), and large flocks of well-fed sheep and goats were pasturing upon the neighbouring hills. Large numbers of donkeys and some horses were also feeding there. We encamped under the shadow of a fine butmah-tree (a species of terebinth); there are nine of these in the valley, very old ones, and their gnarled trunks and spreading branches present an extremely picturesque appearance. The valley has been enclosed for purposes of cultivation, and the banked-up terraces (called by the Arabs "ugum"), to stop the force and spread the waters of the seils over the cultivated ground in the wády bed, extend along its whole length. On the left-hand side, amidst ruins of houses and stone heaps, is a *dowár* (circle), larger than those of Biyár and Lussán, but of the same construction, and carefully built. A little lower down on the same promontory are the foundations of a square building and of a tower, but no traces could be discovered of any church or temple. Opposite the *dowár* are two deep wells, one of them dry, the other built in with very solid masonry, and surrounded with troughs for watering the flocks and herds. A man in a state of nature was always to be seen drawing water for the camels, hundreds of which at a time were crowding around to drink. When the camels had finished, the flocks came up, and it was a curious sight to see the sheep and goats taking their turns, a few goats going up and making way for a few sheep, and so on, until the whole flock had finished. A little farther on, on the same side, is the fiskíyeh, a large reservoir, with an aqueduct leading down to it from the wells. The well, which still yields good water, is about twenty-five feet deep. Besides the troughs there are circular trenches fenced round with stones for the cattle to drink from. The aqueduct is on the north-east side of the valley, it is well constructed and firmly cemented; the channel for the water is about eighteen inches wide and sixteen deep. It is built on huge blocks of stone to support it from below and give the proper level, and above it is a row of huge boulders to protect it from the falling *débris* and torrents. The fiskíyeh, or reservoir, is built of rather roughly dressed but squared stones in eight courses, the courses of masonry running with great regularity vertically as well as horizontally. It has been originally plastered over inside with hard cement, some of which still remains on the walls. Around the top of the walls is a path some eighteen inches wide, and above this are two more courses of masonry. The earth outside the tank has been piled up to within three feet of the top, and the remains of buttresses are still to be seen around it. From the hill above, the ruins of El 'Aujeh can be plainly seen. The heights

around are covered with cairns, some of which seem to have been dwellings, but they are so dilapidated that their nature and use cannot be easily discovered. By the wells are many traces of buildings and enclosures, and walls are seen in every direction. We spent the next day after our arrival in more carefully examining all the ruins, &c. While Mr. Drake was photographing and I myself sketching at the fískíyeh, some of the bloodthirsty Arabs, against whom Suleimán had warned us, appeared in the shape of two little Arab children with top-knots, who ran away screaming horribly with fright at the sight of us. An Arab lady watched the camera from a safe distance, evidently expecting it to go off. Our appearance, and the stories propagated by our worthy guides, seemed to have stricken terror into the hearts of the community. One old man whom we met asked me a variety of questions about the canal and about the Sultan, whose representatives he supposed us to be. It was some time, however, before he could be put at his ease. 'Eid, the sheikh of the Azázimeh, hung about the camp the greater part of the day, and was very civil. At Suleimán's request I smoked a pipe at the camp fire, and repeated to an admiring audience my denunciations of the infidels who believe that Christians either wish to stop the rain or have the power of doing so. At night Suleimán came to tell us that the other sheikh had demanded black mail, but we grumbled horribly, and declared that the Azázimeh were mere fellahín, or, instead of demanding money from us, they would have given us a sheep at the very least. We stayed here two days, and on February 14th struck camp and proceeded down Wády Birein, past the wells and ruins as far as the mouth of the wády and its junction with Wády Serám; the whole way was marked by signs of cultivation and fertility. As we were going along, one of the 'Azázimeh Arabs came up with a woman having a cutaneous disease, and besought us to give him some remedy. As we had nothing else by us, Mr. Drake wrote her a charm, and the old man received it with a profusion of thanks, regretting that he was too poor to be able to pay for it. At this juncture Selím appeared on the scene, having been sent to prevent us from talking too much with the natives, of whom our own rascals had tried to make us afraid. He asked us rather peremptorily what we were stopping for, and told us to come on. At this we both flew into a frantic rage, and made such a disturbance that Suleimán, to appease us, cursed Selím's father and mother (unnecessary, as I had already done so myself), and promised to beat him in the evening for his insolence. At a point a little below the junction of Wádies Serám and Birein, Wady Hanein comes in: this is a broad open valley, taking its rise in the heart of Jebel Magráh, and running down into Wády el Arish. This name Hanein has never before been breathed to European ears, the Arabs always speaking of it to strangers as Wády Hafir. The reason of this is that there exists an old tradition among them that "should a seil once come down Wády Hanein, there would be an end to all prosperity in the land." Hence the name is considered by them of evil omen, and by no means to be mentioned to Christians, people who are thought to possess such mysterious

CHURCH & TOWN OF C. W. W. W.



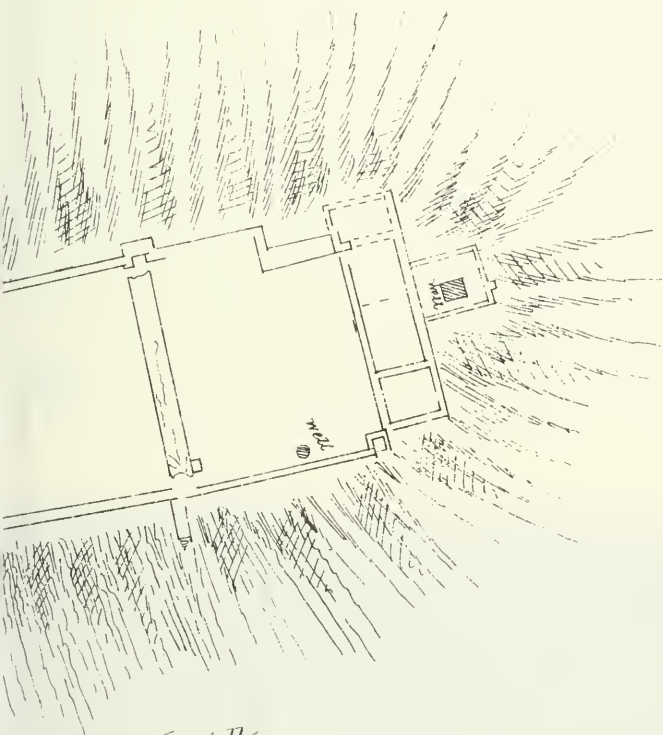
Remains of a rough wall



Ruins

OF

zig zag



Town
125

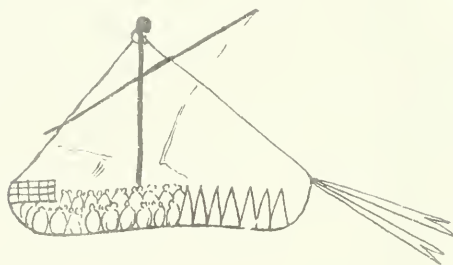
Town

influence over the rainfall. The tradition evidently dates from ancient times, and alludes to the admirable art with which the valley is dammed up, or rather laid out in terraces with strong embankments, which would make it simply impossible for any flood to rush through it, and would distribute the waters equally over the surface of the cultivated terraces, instead of allowing it to sweep unimpeded down to the sea, as in other valleys unprotected by such art. They might well, therefore, say that if a flood once came it would put an end to all prosperity, as it either could not come at all, or if it were strong enough to destroy the embankments, it must be such a deluge as would inevitably devastate the land. Perhaps the names 'Abdallah and 'Ali, which our Arabs had themselves given us, made them forget that we were not of the "faithful," and rendered them more confidential; but certain it is that the wády is called Hanein, as we had many opportunities of testing. In two hours and ten minutes from Birein we reached El 'Aujeh, where we encamped a little above the ruins. The principal building, viz., the fort and the church, stood upon the summit of a low hill or promontory round which sweeps Wády Hanein. Now all is desert, though the immense numbers of walls and terraces show how extensively cultivated the valley must once have been. Arab tradition, which calls Wády Hanein a "valley of gardens," is undoubtedly true, for many of those large, flat, strongly-embanked terraces must have been once planted with fruit trees, and others laid out in kitchen gardens, and this would still leave many miles for the cultivation of grain. At the south side of the hill on which the ruins stand is the ash-heap of the fort, on which are strewn great quantities of broken pottery and glass. Here, too, are a few ruins, apparently connected with the fort. To the east of the hill, and in the valley itself, are the ruins of the town, now little more than a confused heap of broken walls and half-buried foundations, but still of considerable extent. Amongst them we found a church, part of the apse still standing, and a few broken columns. There are also three wells, now dry, but one of them in a very perfect state, the top covering and wall which protected it still remaining entire. The Arabs call it *Bir es Sákiyeh*, "the well of the water-wheel," and the circular pavement whereon the animals turned the wheel is still visible. The black, flint-covered hill-slopes which surround the fort are covered with long rows of stones, which have been carefully swept together, and piled into numberless little black heaps. These at first considerably puzzled us, as they were evidently artificially made, and undoubtedly intended for some agricultural purpose, but we could not conceive what was planted on such dry and barren ground. Here again Arab tradition came to our aid, and the name *teleilát-el-'anab*, "grape mounds," solved the difficulty. These sunny slopes, if well tended, and with such supplies of water and agricultural appliances as the inhabitants of El 'Aujeh must have possessed, would have been admirably adapted to the growth of grapes, and the black flinty surface would radiate the solar heat, while these little mounds would allow the vines to trail along and would still keep

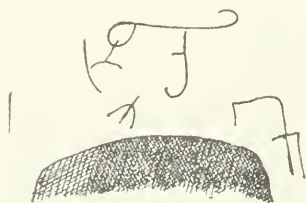
the bunches off the ground. I have before alluded to the importance and bearing of this discovery. A little above the ruins, on the western side of the valley, is a large cave or quarry, with wide pillars supporting the roof, an exaggerated edition of the one at Guseimeh. The light breaking into the cave at various intervals, and the jagged and massive appearance of the columns, give the place an extremely picturesque appearance. The dimensions are 265 feet by 95 feet. When in camp at night, after dinner, the sheikh began upbraiding Selím for his impertinence to us during the day, and stated his intention of beating him. Selím prayed for mercy, and then came a sound of thrashing, and loud lamentations from the victim. The whole thing was a farce, as the rascal Suleimán had no doubt himself sent Selim to prevent us from talking to the Azázimeh, and did this merely to clear himself when his plot had failed. The blows sounded suspiciously, as if given upon a camel saddle, but the moral effect was the same. Since the fiasco of Suleimán's lamentable attempts to frighten us, he had taken to a fawning, abject demeanour, that was almost as amusing as it was disgusting. The next two days (Feb. 14th and 15th) we stayed at El'Aujeh, to examine the place more thoroughly. We first proceeded to the cave, where we sketched and photographed, and then visited the ruins on the hill, where we took measurements and made plans of the fort and church. The church is in better repair than the other building, some of the walls at the south-east corner measuring 23 feet 6 inches, and 8 feet inside, and the others being about 15 feet. Both the church and fort are built of squared and dressed stones, cemented by a light mortar almost like mud, and by no means so strong as that in the fiskíyeh and aqueduct in Wády Birein. The church is oblong, 122 feet by 48 feet, with three apses, that on the north side showing traces of a fresco, a Greek Σ and some marks of paint being all that is now visible of it. On the south side is a smaller chapel, with a chamber behind, and there are two others at the west end. The partition walls are not more than two or three feet high. Many broken fragments of columns are lying about, with square capitals. The pillars are surrounded with rings, giving them the appearance of having been turned. There was no trace of ornamentation, except on two fragments of stone, which bore a simple quatrefoil pattern; nor could we discover traces of inscriptions in any of the ruins, either upon the hill or in the valley beneath; but there are some scratches of Greek letters, and in one place a rude drawing of a ship on a stone in the outer wall. The walls were originally plastered inside. The orientation is not exact, being 116° , or $3\frac{1}{2}^\circ$ S. of S.S.E. The fort is 272 feet by 107 feet, with remains of an arched entrance 14 feet wide. On the west side is a door, five feet wide, and a flight of steps leading from it down into the valley. At the east end is a large white wall, fifteen feet thick and about twenty-five feet high. This is the "castellated rock" of some travellers, who have only seen the ruins from afar *en passant*; in it are remains of beams, showing the height of the different stories. Beyond this is a circular well shallower and of much ruder



A camel drawn by Sheikh Suleiman ibn Hamid ibn 'Amir



El Aujeh on E. wall of Church.



Over door of an inner cave at El Meskrifeh.

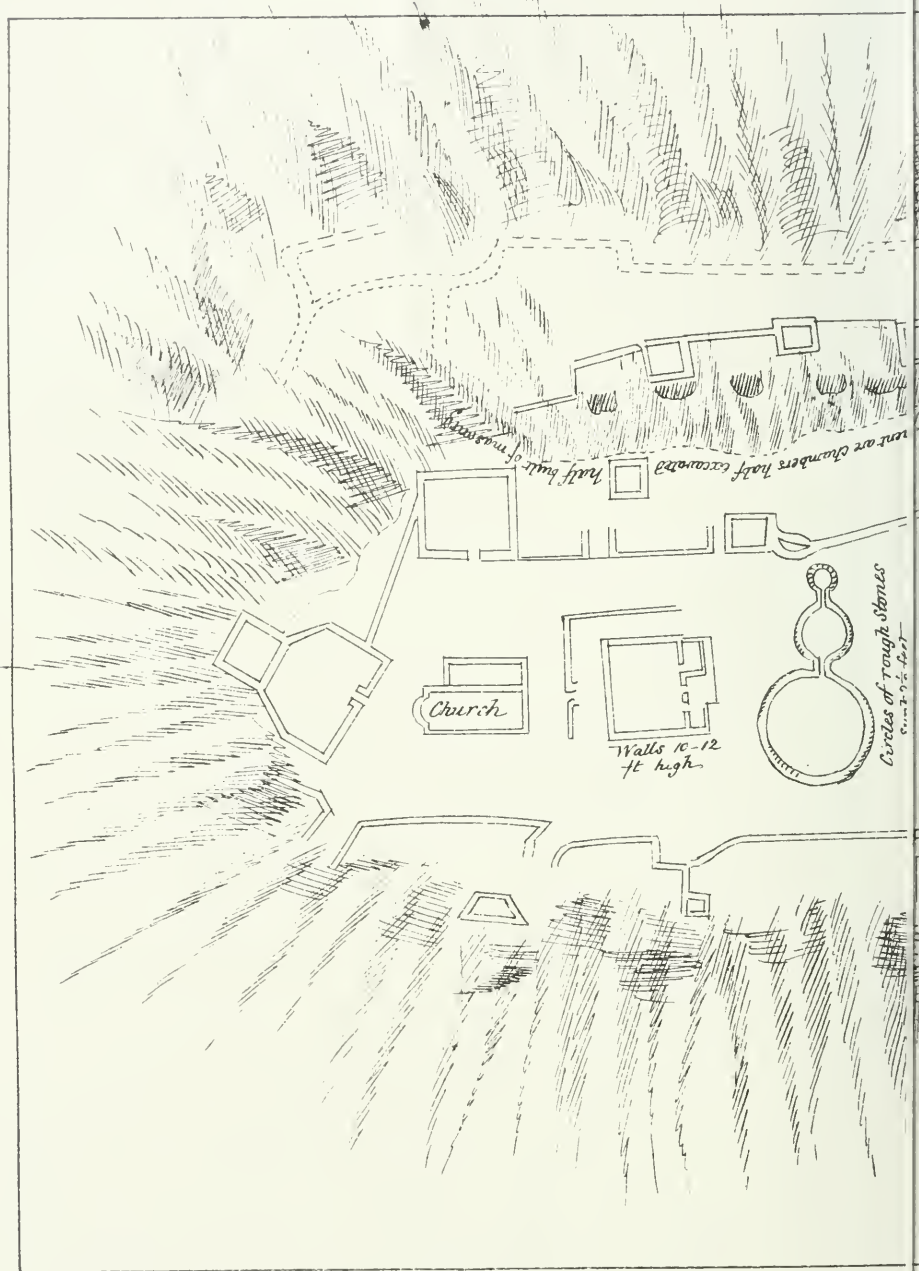
construction than the other wells, and not improbably a matamore or corn-cellar. Farther on are the foundations of a small tower, and at the extreme end a large well, thirty-five feet deep, of solid masonry, and forty-one feet deeper in the rock; it is ten feet square. This and the three wells below amongst the ruins in the valley are all of precisely the same construction. They are square as far as the masonry extends, the corners having ledges or brackets of flat stones at distances of five feet, probably for cross-beams, or some method of descending into them. The tops are covered in by two arches, with a space of about thirty inches between, the whole being protected by a stout roof of concrete and rubble. This aperture was evidently made for the water-wheel, and the well worked like an ordinary Egyptian *sákiyeh*.

On February 16th we crossed Wády Hanein and the low hills on the other side, which were also covered with the "grape mounds" before alluded to. In one place we noticed remains of a reservoir and a large circular mound, probably the foundations of a wine-press. Descending into Wády Abu Rútheh, we camped early, as we had to send some distance for water. On our way to Sebáta (Esbaitah), and in the course of the afternoon, two of the Azázimeh came up, and at first saluted us most respectfully and quietly, but after an amicable cup of coffee, and while we were engaged in cooking our dinner, they suddenly got up and began to upbraid Suleimán for taking Christians to El 'Aujeh, and went off in a rage. The water to which we sent for our supply was called El Hasaineiyeh, and consists of a few *themûil* only.

Having heard of a site called Esbaitá, we determined to visit it, and accordingly crossed the hills into Wády el Abyadh with that intention. Here Suleimán came up, and expatiated upon the danger of the attempt, begging us to go by the regular road to Rehaibeh instead. Seeing that we were determined to follow our original plan, he came on, though in a very ill temper, and in two hours from camp we reached Wády Sideríyeh, where we pitched our tent. Staying only a few minutes to eat a piece of bread, we crossed the hills that form the head of the wády, and in about ten minutes found ourselves at a ruined fort called (probably from its commanding position) El Meshrifeh. The fort consists of a walled enclosure on the top of a hill, protected by three large towers on the southern side, one on the eastern, and one on the western, with a series of escarpments and bastions on the southern or precipitous side, extending right down into the wády bed. The rocks immediately beneath the summit, and behind the first lower tier of escarpments, are excavated into a series of caves, which formed chambers with the masonry of the fortification itself. The most westerly of these is of a ruder construction, and is walled in, in front, with large unhewn stones, and appears to be of a much earlier date. A little farther on is one which has the end cut into the form of an apse, and, although very low, looks like a small chapel. The masonry throughout is very solid and compact, some of the hewn blocks of stone being of immense size. At the lower part of the escarpments are traces of an earlier and

runder masonry, over which the present structure is raised. The walls are strongly built, for the most part of unhewn stones, except the western one, which had several loopholes still visible in it, and the remains of a large doorway. In the centre is a building about 40ft. square, with three chambers at the west end and a larger open space at the eastern. In front of this are three circles carefully built round with upright stones, and sunk a little below the surface. They lead one into the other, and measure severally 50ft., 25ft., and 12ft. in diameter, the last one being composed of small stones merely piled round. The walls of the building and of the church which still remain are from 10ft. to 12ft. high. The towers are of a peculiar construction, being built with very thick walls, and in a series of tiers, with "pigeon-holes" about 3ft. high; the front of one has fallen down, showing the section. The chambers in the towers were also strengthened by arches, one of which is still visible and in a good state of preservation. The church within the enclosure measures 40ft. by 20ft., has a semicircular apse at the east end, and a side chapel on the south, the plan being the same as that at of El 'Aujeh. The view from the top of the wall is very fine and commanding. Wády el Abyadh, some miles broad, and extending to the base of Jebel Magráh, sweeps in a semicircle round the hill on which the fort stands. It is not laid out in terraces like Wády Hanein, but there are many vestiges of agriculture, especially on the more elevated portions, every one of which has been taken advantage of for the cultivation, it would seem, of vines, as the same ridges and furrows, the *teleilat-el-'anab* which we noticed at El 'Aujeh, are seen upon them. The surrounding and opposite hills have many 'ugúm (walled enclosures for cultivation) on them. About three miles and a half to the south is seen Es Sebaita itself, which is a town of considerable size. Wády es Sideriyeh, in which we were encamped, also contains some ruins which resemble wine-presses, and every little gully is also carefully embanked and built up with rude masonry. The hills are covered with paths at very regular intervals from top to bottom, and these we conjectured may have been vine-terraces, though some are no doubt due to the nature of the limestone, the regular strata of which often wears away into similar shapes.

On February 17th we made an early start, and, leaving the camels to follow after us, started off with Suleimán, and crossing over the hills at the head of Wády Sideriyeh, descended into Wády el Abyadh, and made our way across to Sebaitá. On our way we passed several deserted vineyards and gardens, and one or two ruined buildings, probably either wine-presses or storehouses. In an hour we reached the ruined town, and at once prepared to take our photographs and make plans, as the sheikh was very anxious for us to get it done before any of the Arabs of the place came up. He seemed to-day really apprehensive of meeting them, and as soon as we had entered the ruins he made a hurried inspection of them to assure himself that no stray Bedawí was lurking there with mischievous intent, after which he

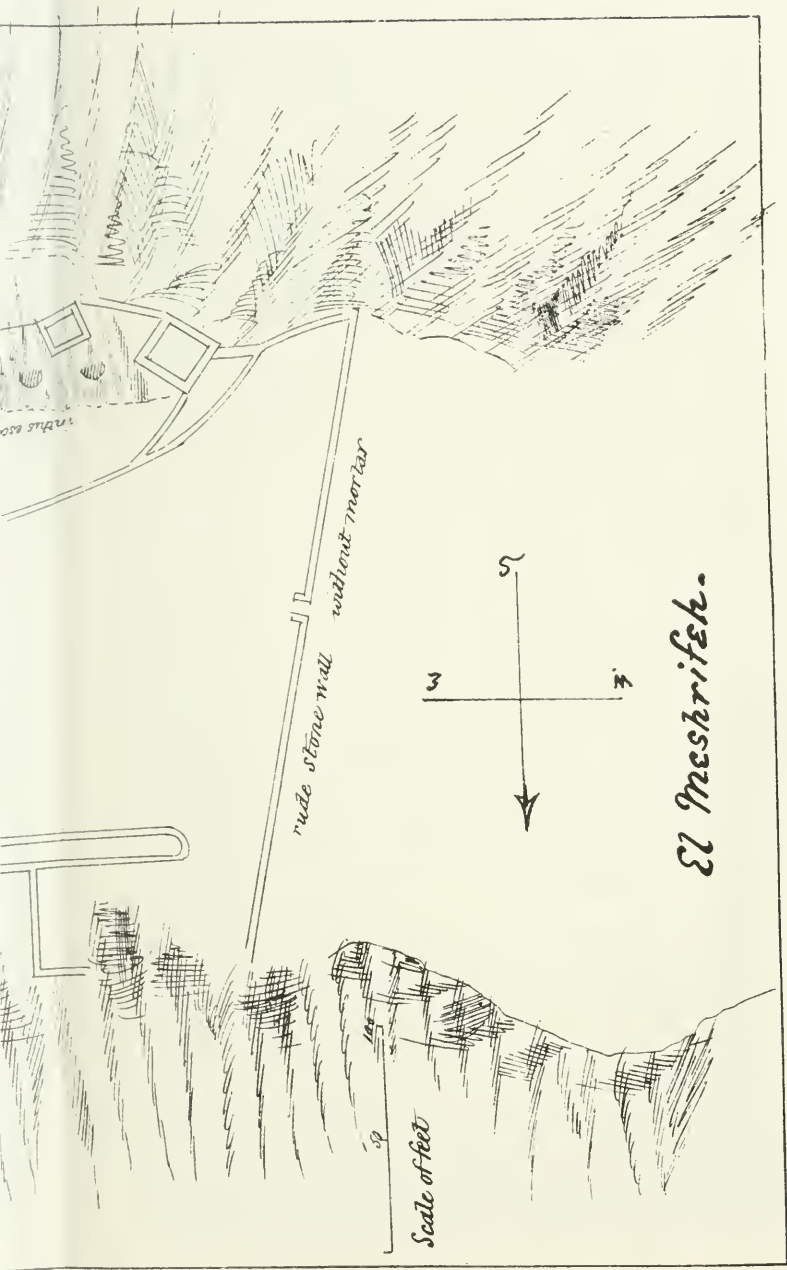


half built of masonry
rest are chambers half excavated

Church

Walls 10-12
ft high

Circles of rough stones
S. 100° 2' 9" E. 20' 2"



posted himself upon the apse of the church, and kept an anxious lookout until the camels came in sight. The men, when they did come up, camped in a secluded hollow, and would not set up the tent till sunset.

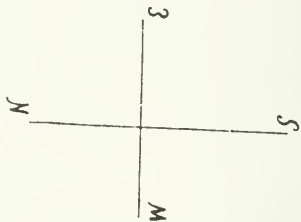
Sebaitá is situated in the Magráh el Esbaitá, which takes its rise in the mountain of that name, and drains into Wády el Abyadh. The ruins are by far the most imposing and considerable of any which we had seen, and the Arabs themselves say, "*A'azem min el 'Aujeh wa el 'Abdeh má fi, illa Esbaitá a'azem minhumá,*" "There is nothing larger (or grander) than 'Aujeh and 'Abdeh, except Esbaitá, which is grander than either." They have also a tradition that there was once a war between the people of El Meshrifeh (the fort which we had visited the day before) and those of Esbaitá, in which the latter were victorious, as they were superior in numbers and wealth. Their gardens (which may still be seen in large numbers around the city) were fruitful and well-kept, and the hills all around were covered with orchards of apples and pomegranates, and terraces of clustering vines. The ruins, as they now stand, consist of a city about 500 yards long, and from 200 to 300 yards wide; it lies north and south, bending round towards a branch of Wady el Abyadh. The town is very strongly and compactly built, and contains three churches, a tower, and two fiskíyehs, or reservoirs for water. The houses are built of stone, generally square-hewn but undressed blocks at the bottom, and smoothed dressed stones in the upper parts. No timber beams are used in their construction (probably because wood must always have been scarce in the country, even in the time of its fertility), but the want is most skilfully supplied, all the lower stories being built with arches about three feet apart and two feet wide, long thick beams of stone being placed across them to form the roofs (see plate, p. 20). There are numerous wells about two feet in diameter, and generally covered with a square stone block, having a hole cut in it, not unlike the coal-cellar traps in English pavements. Nearly every house has its well, and they are also conveniently placed in all the corners of the public places. The streets are still plainly to be traced, although the level of the soil has been considerably heightened by the fallen *débris* and rubbish. The outer buildings are either walled in or strengthened with additional masonry, and present a series of angles like a fortification. There are also traces of an older and very thick wall surrounding the town. The churches are: first, the great church at the north end of the town; this is of the same pattern as those at El 'Aujeh and El Meshrifeh, having three apses and a side chapel. It measures forty-nine by twenty-one yards inside, but nearly half of this length is taken up by a building apparently subsequently attached to it. From the appearance of this, and the other buildings immediately adjoining it on the south side, we came to the conclusion that there must have been a monastery connected with the church. The walls are of considerable height, the centre apse standing some thirty feet; they have been strengthened at a later period by rude but massive masonry, built up in a slope against the original wall, which plan is also observable in the other buildings in the town, which,

like the church, are more exposed than usual, from their proximity to the outer walls. The other two churches are situated more in the centre of the town, and are of smaller dimensions, measuring sixty-six by forty-seven feet each. In the apse of the more northern one is some rude paint ornamentation still visible upon a small arched niche in the centre, and also some vestige of a fresco. The tower stands a little south of the last-mentioned church; it is about twenty feet square, and the stories (like those at El Meshrifeh) are built with the stone arches just described. The fiskíyehs are two irregular-shaped reservoirs, with a flight of steps leading down into them. On the side of the tower is a small arched doorway, having a rude sculptured ornamentation over it, consisting of three circles, with crosses between, and surmounted by an urn, from which a palm-tree is growing, supported by a lion rampant and a griffin, which stand upon the handles. This, too, shows traces of having been covered with red and blue paint. There was no other ornamentation to be seen or discovered about the place, except a few fragments of stone, with the same simple star or quatrefoil pattern which we found at El 'Aujeh, and fragments of columns which we noticed had the same rude turning lines which we remarked at the latter place. No inscriptions of any kind were to be found. The houses are all of one type, small arched chambers with niches here and there, and a little courtyard. In one of the niches was a cross, rudely chipped out in the side. Many of the walls stand from twenty to twenty-five feet high. After completing our photographs and plans, we took a stroll through the town to impress its features more thoroughly on our memories; the perfect stillness and utter desolation were very striking and impressive. On reaching camp the Arabs had just seated themselves comfortably to eat a morsel of bread, when a shriek resounded through the valley, and they all seized their guns, those who had none borrowing ours, and rushed off, thinking that some of the 'Azázimeh had made off with the camels. Shortly afterwards they returned in high spirits with Selím, who had shot a gazelle, the cause of all the excitement being that he was shouting to find camp. In a few minutes the creature was in the pot boiling.

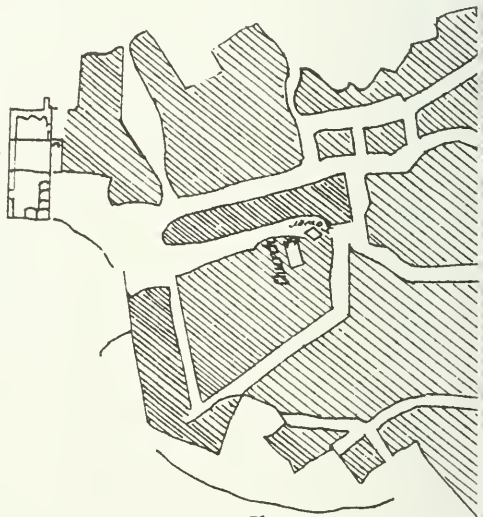
The name Sebaitá at once suggests the Zephath of the Bible. Zephath signifies a watch-tower; and it is a noteworthy fact that the fortress of El Meshrifeh, discovered by us in the same neighbourhood, exactly corresponds to this both in its position and in the meaning of the name. I would make one more suggestion respecting this site: Zephath has always been considered as identical with Hormah; and in Judges i. 17 it is thus spoken of: "And Judah went with Simeon his brother, and they slew the Canaanites that inhabited Zephath, and utterly destroyed it. And the name of the city was called Hormah." May we not understand the word "Zephath" in its proper signification, and consider "the city," after all, as separate from the tower or fortress thus attacked and destroyed? The city, which was protected by so commanding a fort, might well be spoken of as the City of the Tower; and, as so important a position would not be likely to be neglected by later inhabitants of

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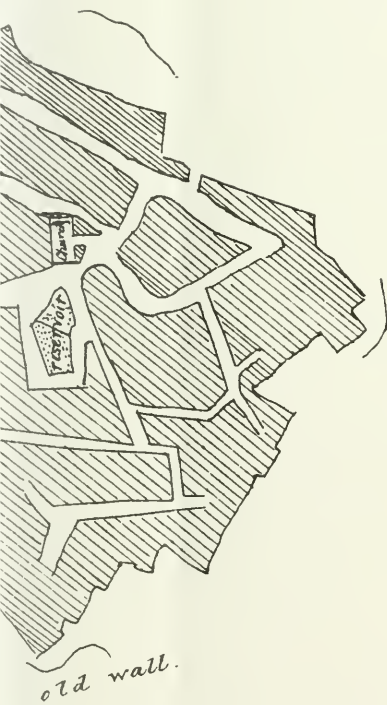
Scale of yards



Church



Traces of



Plan of the town of S'baiza.

the land, I think it not improbable that in El Meshrifeh we see the site of Zephath itself, and in Sebaitá that of the city of the "Zephath," to which the Israelites, after their victory, gave the name of Hormah.

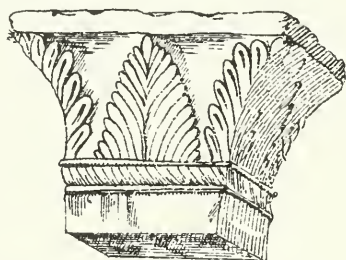
Proceeding along the Magráh es S'baitá for three hours in a north-easterly direction, we came to a small wády in the low sand hills, where our sheikh had been told that we should find water. Here we halted, intending, if possible, to get on towards Ruheibeh the same night after filling the skins, but there were so many of the Arabs of the neighbourhood at the pools that a delay occurred, and we were obliged to camp. The water is found in three little pools (*themáil*), and these are only filled from the *seils*, not perennial springs. Vineyards and gardens, with here and there strong buildings in the midst, were visible in great numbers immediately after leaving es S'beitá; but in about an hour and a half all traces of cultivation ceased. While waiting for water we ascended one of the neighbouring sand hills to look out for Ruheibeh, and noticed through the glasses a string of camels in the distance upon the regular road, some of them having riders whom we conjectured to be European travellers. An old Arab, a friend of Suleimán's, came up to our tent with a negro slave—an ugly, stupid looking lump of niggerdom whom he wished to sell for £10. The water where we were stopping was called Themáil et T'ráshed. Near this point Wády Dheigat el 'Amerín comes into the plain from the Magráh.

Walking for some hours over the hills, at the back of our camp, and across a broad valley called Wády ed Dhaba'í, we came to a white mound in which was a cave 34ft by 51ft., with chambers round it, which had evidently been used as a place of sepulture. Up to this point we had not met with any vestiges of cultivation since leaving the Magráh, the hills being all covered with drift-sand brought (as the appearance of the bushes showed) from the west. Passing the cave, however, the familiar '*ugúm* and embankments again became visible in the wády beds, and numerous ruins, as of country and garden houses, were scattered over the hill tops. One of these was of considerable extent, consisting of two blocks of buildings, altogether about 100ft. long. Amongst the ruins was a broken capital with a simple but well-carved Corinthian pattern upon it. Half an hour further on to the west were the ruins of a city, some caves, and an old well, with immensely massive masonry, pointing to a very ancient date. Reserving our description of this place for a more thorough investigation, the next day we went on to camp, which was pitched in Wády er Ruheibeh, and then taking the photographic instruments with us, we proceeded to some other ruins which were situated a few miles from our tents. On our way we put up a herd of gazelles, one of which Suleimán succeeded in bringing down. In the evening we were visited by a Bedawí poet, who recited some very fair verses of his own over the camp fire, and also repeated some poems of the celebrated East of Jordan Chief, Nimr el 'Adwán.

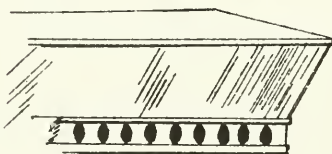
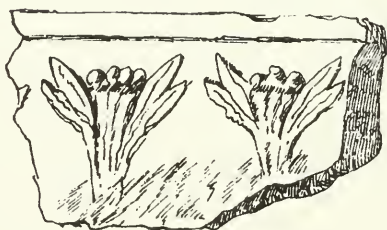
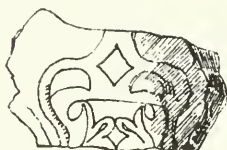
A strong hot wind getting up early the next morning (February 21),

made it very uncomfortable for work. However, shortly after breakfast we set off for the ruins which we had discovered the day before. They were situated in Wády es Sá'di, and consisted of the remains of a small town, but in so ruinous a condition that it was impossible to make out the plan. The buildings were of a different character to those at S'beitá, there being, for instance, no trace of any such architectural device as the arches on which the floors of houses in the latter place are built. From a little distance the place seems a mere collection of stone heaps, but on approaching more closely you can define here and there the course of a street, and see a wall or the corner of a house standing out in a somewhat better state of preservation than its fellows. We could not find any traces of a church. On the north-east side of the wády are remains of a wall, some stone heaps, and a large circular mound of stone, exactly like those at Serám and Wády Lussán. The town is about 400 yards long by 150 yards broad, and lies north and south. On the opposite (north-east) side of the wády to that on which the ruins lie are the remains of an ancient well, the troughs and other masonry which still remain being of immense proportions and seemingly of very great antiquity. One of the troughs is round, the other circular and cut in blocks 6ft. by 5ft. by 6ft. Judging from the proximity to Ruheibeh and the appearance of this well, much larger and more ancient-looking than any others in the neighbourhood, we deemed it far from improbable that it is the well of Isaac. The name Rehoboth, being in the plural, may well apply to any of the valleys or spaces between these low sloping hills, and the name Ruheibeh, which still lingers in the neighbourhood, may be a reminiscence of the more general title, though now confined to a single spot. Leaving Sá'di we visited some ruins which stood upon the hill-side overlooking our camp, and found them to consist of square towers with massive masonry and an interior partition wall. There are also a good number of outbuildings around them. In the wall of one of them, which still stands about 20ft. high, is a loophole, and above it a small stone ornament like an imitation or miniature *macciacoulis*.

There are a great number of ruins upon many of the surrounding hills. Passing down Wády Sá'di we came into Wády er Ruheibeh, and about a mile up that turned off into a side valley called Wády el Bir. Here are the remains of another large town, much more important in size than those at Sá'di, but in even a more desolate and confused state of ruin. Like the other, it is situated on the hill at the side of the wády, and in the bed of the same is a building which apparently once served as the well-house—for here is the old well of Ruheibeh, though now so filled up with *débris* as to be scarcely distinguishable; indeed, neither Mr. Drake, myself, nor the Arab who was with us on our first visit, could discover the site of the well until its situation was pointed out to us by Suleimán, close beside the building in question. This building consists of chambers, the centre one covered with a dome. Down the walls run square grooves leading from apertures at each corner of the



Capital near Sādi



At Khalasah.

ceiling, as though to drain the roof. It is strongly built, and the inside chambers have been plastered over, while here and there brick is used in the interior construction. The place where the well is said to have existed is marked by a piece of fallen masonry which looks like a roof, and is well put together with flat brick-shaped stones and cement. The larger inner chamber has arched niches on either side. There is no other well than this in the Wády Ruheibeh itself, but on the sloping sides of Wády el Bir, in which these ruins are situated, are numerous wells, reservoirs, and cisterns. Each of the wells has a large square stone placed over it with a circular hole for the mouth. The cisterns are partly built of masonry and partly cut in the solid rock—one which we examined was about 40ft. square—but all of these are now either dry or filled up with *débris*. Below the well-building are the remains of what, from its situation, (lying east and west,) we concluded might have been a church; and just below the town itself is a large fiskíyeh, or reservoir, also half composed of masonry and half cut in the solid rock. Walls, *‘ugúm*, and other traces of cultivation, are abundant in the neighbourhood. A little beyond this the wády opens out and receives the name of Bahr bela mi (the waterless sea), and on the left comes in a small valley called Shutnet er Ruheibeh, no doubt the *Sitnah* of the Bible.

On February 22nd, we proceeded up Wády Ruheibeh for twenty minutes, and then for an hour and forty minutes further over low hills (at first by one or two little valleys, or Raudh, called, also, Shutneh) on to Khalasah. The ruins are situated in Wády Aslúj, though below the city the valley takes the name of the town. There is no such name in the neighbourhood of the ruins as Wády el Kurn, or Kurm, which is given to it by Robinson. The ruins are extensive, but so utterly destroyed that it is impossible to make out what the original ground-plan might have been, though the course of one broad street can still be traced. The inhabitants of Gaza are in the habit of removing the stones for building purposes, and have thus nearly cleared the site, in many cases actually digging out the foundations of the houses. There is a well with good but rather brackish water, to the south-west of the town. Another circular well, now blocked up, is also found in the wády bed, and on the hill-side a little above it are the foundations of a building with a large cistern covered in with strong masonry, and having had originally a flat roof like that at Ruheibeh. In one of the ruined sites in the town itself, we found fragments of a marble entablature ornamented with a rude sculptured pattern.

Leaving Khalasah amidst a thick haze, which entirely obscured the horizon, and with a sharp storm of dust blowing in our faces, we crossed the Rumeil et Hámid, a series of rolling hills covered with drift sand. In two hours and a quarter we reached Wády Martabeh, and on the hills which divide this from the small Wády Khazáli (which falls into it a little lower down) we found remains of a building and a reservoir, which we conjectured to be a station on the old Roman road to ‘Akabah, for

near it is a road which, Suleimán told us, leads to the water of Martabeh a little lower down, and another going up the wády into Jebel Rákh-mah, and joining the road to 'Abdeh, which crosses Wádies Martabeh and 'Aslúj. Twenty minutes further we turned into a small wády leading into Wády Seb'a. The distance was altogether four hours' journey for us and six for the camels. At first the camels were, as usual, making a detour, so that we should occupy two days instead of one in getting to Beersheba, but as we had nothing to gain on this occasion by going out of our way, we protested and brought up all the long series of similar tricks; the sheikh pushed on and we reached Bir Seb'a about an hour before sunset. Our first impressions of Beersheba were anything but favourable. We found it presenting an aspect far different to that described by previous travellers; for such had been the severity of the recent drought, that the herbage was entirely burnt up, and in place of rich pasturages there was nothing but a dry, parched valley, bare and desolate as the desert itself. This state of things had compelled the Bedawín to move off with their flocks and herds to more fertile spots, and we were therefore unable to find camels to take us back into the mountains without going up to Hebron, as our Arabs dare not venture so far beyond their own borders. In the morning a shower of rain fell and prevented us from leaving the tent until eleven o'clock, when we visited the ruins and wells while the camels were loading. Two of the wells are filled with water, and one is dry: they are built of fine solid masonry and are in a tolerably perfect condition. In the immediate neighbourhood are also traces of the other four wells which undoubtedly once existed there, and the Arab tradition informs us that "The Beni Murr dwelt by seven wells (Seb'a Biyúr), each well had seven tanks, each tank had seven troughs, and each trough had seven horses drinking thereat." The opposite (southern) side of the valley bed is banked up with a stout wall of ancient masonry to prevent its falling in. This wall extends only for a few hundred yards along the part immediately opposite the wells. The hill-side immediately behind them is covered with ruins, but the stones have been so entirely removed or destroyed that nothing now is left but the foundations, and these are so confused that very little can be made out as to their original plan. A little higher up the wády, and just above the easternmost well (the dry one), the ground-plan of a perfect Greek church, with a semicircular apse, can be plainly distinguished; the foundations are, however, quite level with the soil. In the sites of the buried wells, or what we took to be such, are the remains of a trough or cistern composed of layers of stones embedded in concrete. This form of masonry may be also observed in some of the other foundations.

The country around consists of a rolling plain or down intersected by the wády beds of Es Seb'a and Khalíl, and would, no doubt, be very pretty, as a contrast to the desert which we have just passed through, were there any verdure or herbage upon it; as it is, there is absolutely nothing to relieve the eye. In other years, the Arabs tell us, it is covered for

miles around with grass, flowers, and herbage, up to the knees; but last year there had been so little rain that nothing would grow. At one o'clock we left Beersheba, and turned off to the left of the hills which divide Wády es Seb'a from Wády el Khalíl, (or rather at the point where they diverge,) and keeping near the bed of the latter wády, we proceeded towards the ruins of El Haurá, where we were to have encamped. At about four o'clock we reached a hill with some stone heaps and remains of rude walls upon it, and at its base some *metámír*, or granary pits. Here we were joined by our camel men, who came up in a state of great excitement, and after some prevarication told us that the place in which we had halted was not Haurá, but pointed to some hills about an hour off as the real site. Suleimán declared that some Arabs whom we had just met had informed him that the Gaisiyeh, who dwell in the vicinity, had already commenced hostilities against them two days before, and that if we went there it would be at the peril of our lives. Under these circumstances, he implored us to camp where we were, and to go straight on to Dhaharíyeh the next morning. Finding that we took the news very coolly, and laughed at his real or assumed terrors, he at last professed himself ready to make a flying visit with us, but begged us to go well armed. We at once assented, when he made a final appeal and painted in glowing colours the risk to which we were exposing ourselves. "*Yellah*," we replied, "cut along!" and with fervent ejaculations for protection from Allah, he started off, and we walked quickly over the plain for nearly an hour, (rather fatiguing work after a hard day,) and a little before sunset reached the hills on which the ruins stand. First, we visited the cave mentioned by Dr. Tristram, which, although it still retained traces of moisture, did not then contain any water. What are described in the "Land of Israel" as two tunnels are merely the arched tops of the cave formed by the pillar which supports the roof, and which, if the water covered the pillar itself, would have the appearance of tunnels. On the right side is another such arch, but the mud is so deep that it is impossible to say how far down or back it goes. There are many other caves, which have been built up or excavated to form reservoirs, and one large excavation exists with a circular opening like those at El 'Aujeh and Khalasah. There are also a great many wells. They all appear to have a communication with a system of cisterns or reservoirs undermining the hills. The place might well be called the city of cisterns, and the name Haurá, indeed, has some such primary meaning. The ruins themselves cover the crest of a long triple hill, and are of considerable extent. The houses are formed of immense blocks of flint conglomerate, many of them measuring 6ft. by 4ft. by 2ft. The squarest have been picked out and built in like huge hewn stones or bricks. The houses are about 30ft. by 20ft., and generally consist of a single chamber. One large building has the appearance of a temple. Fine lines of walls, wells (one with a piece of limestone masonry and a cornice still remaining), and a concrete trough, are to be seen; and the hills around are also covered with ruins. In the distance, at an angle of 85°, were the ruins of Sa'áwi. The flinty

blocks, not being exposed in these latitudes to their only enemy, severe frosts, may have defied time and the elements for ages, and seem likely to do so still. We met none of the formidable Arabs mentioned above, for which mercy Suleimán and Selím, who had also accompanied us, returned most pious thanks to Providence, and we got back to camp by dark. We subsequently learnt that the statement of the Arabs was true, and Suleimán's fears not unfounded.

That day (February 24) we entered Palestine and left the desert region of the South Country, but there was little to remind us of the fact except that the brown mould beneath our feet was hard with the fibre of dried vegetation, that the hills and plains showed traces of the plough, and that in the wády beds an occasional streak of refreshing green grass might be observed. We noticed a large flock of pigeons and a flight of cranes, as well as four gazelles browsing in the distance. Cattle and flocks there were none, for the drought this year has driven all the Arabs far from the pasture lands of Beersheba.

The next morning we walked over the rolling country, through which Wády el Khalíl runs, and passed on our way many wells, cisterns, and other indications of former fertility and habitation, which, even with the present drought, was sufficiently marked to present a striking contrast to the desert which we had left. At the end of the hour and a half we came to some ancient ruins called Dátraiyeh, situated on one of the hills which form the entrance to Palestine proper. They consisted of walls and houses of solid masonry, some of the stones employed in their construction being of immense size. The basements are for the most part built on arches somewhat after the style of architecture prevalent at S'ebitá. There are numerous wells about the city, most of them apparently connected with a large system of excavated reservoirs on the hill-side. Leaving this place we crossed over a small mountain pass and found ourselves in Wády Dhahariyeh. Here the hills were covered with vegetation, and the bállúteh, or dwarf oak, began to appear. The valley itself is banked up with strong walls, 'ugúm, and terraces, which have evidently been kept up from ancient times, as the hill-sides and places where there is now no cultivation are covered with them. In three hours and a-half from camp we reached the village of Ed Dhahariyeh, which is situated on a hill, at a point where the wády widens out, and is surrounded with fields and cultivation. At the foot of the hill are two fine olive-trees, by one of which we pitched our tent. Ed Dhahariyeh, at the first glance, or to the traveller who merely passes by and does not venture into the village itself, presents nothing to distinguish it from an ordinary Arab village, and may seem to confirm the remark given in "Murray," that "there is nothing of interest there to detain the pilgrim." But on ascending the hill we found it, on the contrary, a most interesting place. The dwellings consist principally of caves in the natural rock, some of them with rude arches carved over the doorways, and all of them of the greatest antiquity. The spots selected for their excavations are small terraces on the hill-side, and these are walled

round with mud fences, and form a sort of court-yard in front of the cave itself, in which dogs, goats, chickens, children, and other members of the family take the air. They are exactly like what the old Horite dwellings must have been, and have no doubt been inhabited by generation after generation since the days of that now forgotten race. The village is evidently an ancient site; and in the centre is the basement of a building of massive masonry containing three arched apartments. Entering these we were immediately covered with fleas, shaking and brushing them by *hundreds* from our arms, legs, and clothing. Old arches and other remains of antiquity appear at every corner. We went into one which is now used as a coffee-shop by the fellahín inhabiting the place. We were very well received by the Moslem population, who, though thieves and scoundrels, are a cheery set, and gave and received "chaff" in the most good-humoured manner. As we walked through, women (who, strange to say, are here all unveiled and all ugly) rushed out of the caves and screamed in excited and angry tones "*bádh djá-á-j!*" The unlearned might have taken this for abuse, and beat a hasty retreat from the apparently frantic amazons, but we knew that the words merely meant that they had eggs and chickens to sell. The evening was consumed in settling with Sheikh Suleimán, who went away positively content with his bakhshish, though, true to his Arab character, he begged for a series of small articles to the last.

We rested at Dhahariyeh for the night; and in the morning, after a long squabble with the head men of the place, we were compelled to submit, under protest, to the imposition of paying two mejidis a-piece for four camels, and began to strike our tent and pack up for ourselves. Some time after noon we got off, but owing to the laziness and constant stopping of the fellahín who came with us, we did not get into Khalil until past sunset. We camped over against the Quarantine, and after abusing our fellahín soundly for robbing us of a crowbar, and trying to steal a rope, we made a *mag'ad* (i.e., semicircular shelter) of the boxes, and prepared to pass the night Arab fashion, *sub Jove*, one of us always keeping on the watch. But the Mudír, a good-humoured old effendi who rules the quarantine, would not hear of it, and very politely insisted upon our coming into the building itself, where he gave us a room to ourselves, and sent us up a dinner of rice mixed up with oil and onions, together with some bread and *dibs*, or syrup of raisins. This the effendi went through the show of preparing with his own hands, and we being both hungry and tired, ate it with relish and turned in. At a little after seven in the morning we awoke, and could at first hardly realise the fact that we were in an inhabited place, but having made a simple toilet we turned out upon the terrace in front of our room and gazed upon the city of Ibráhím el Khalil. It is an irregular white town, much such a place as S'beitá must have been before it fell into ruins. On the east side, and at the highest point, is the Haram, a Christian church with a minaret added to turn it into a mosque, not a particularly imposing sight in itself, but of the deepest interest, as being beyond all

question the very spot in which the Patriarch Abraham is buried—nay, more, it is almost certain that his very bones lie in the mysterious cave of Machpelah, beneath the pavement of the building. The town occupies the eastern side of a dip in the hills of Judah, the bottom, or valley, being a grassy expanse, the greater part of which is occupied by the cemetery. After a cup of coffee with the effendi at the gate of the quarantine, where we had passed the night, we sallied forth into the town, accompanied by one of the servants of the establishment, and took a hasty glance round the Haram from the outside, walked through the streets and bazaars, and returned to our own quarters to breakfast.

By four o'clock the next day we were in Jerusalem. Our journey had been a most interesting one, though not without its anxieties and risks. The Arabs were very different from the "gentle Towarah," and it was no easy task to overcome their prejudices and their fears, and to extract from them the information which we required.

The whole of the journey—nearly 600 miles—from Suez to Jerusalem was performed on foot, and as we had no servants, everything devolved upon ourselves. This, with the route-sketching, making plans, and other work, left us but little time; and although Mr. Tyrwhitt Drake, in addition to his own investigations, devoted himself with great energy to assisting in the other objects of the expedition, yet we seldom worked less than from fourteen to sixteen hours in the day. Strange to say, we did not find a single inscription in the country, if we except the Arab tribe marks, which have, many of them, considerable archæological and historical interest. I commenced a collection of them last winter in Sinai, and am now preparing a complete account of them, with their history and origin.

As I have much to say about the Holy City, and of the Haram and its inscriptions, I shall reserve this part of my report for the next number of the *Quarterly Statement*, when I hope to give the results of my own investigations here and in other parts of Palestine, as well as an account of the Holy City and the Temple Area, taken from some Arabic books and manuscripts which are now in my hands.

Having procured the necessary provisions for the trip, and exchanged our tent for a much smaller one, we left Jerusalem amidst a violent storm of wind and rain, and returned to Hebron. On March 22nd the old sheikh Hamzeh, with whom we had previously made arrangements for the journey, came to say that the camels had arrived, but it was then so wet and stormy a day that we could not start. The old fellow begged without success for several articles, such as a keffiyeh, &c., and began to make difficulties about going to several places, but as we threatened to dismiss him at once if any difficulty occurred, and treat for ourselves with the sheikh of the place, he gave in, and promised to go wherever we chose. Some of the Jehalín Arabs who were to take us made their appearance, and one old fellow named 'Eisá came up and tried to learn from us the amount of hire we had promised to the sheikh for each camel, but without success. At last, by way of "chaffing" him, I said,

"How much will you give me to tell you?" which observation he took quite seriously, and went off in disgust. We also received a visit from our host the effendi, or Mudír, of the quarantine establishment.

At sunrise on March 23rd we were up and had scarcely done breakfast when old Hamzeh brought the camels, and, wonderful to relate, we got all the loads and the Abyssinian boy, whom we had engaged as a help, upon the four beasts for which we had agreed without any trouble or disturbance. By nine or half-past we were on our way, and had left the towers of Machpelah behind us. It was still very wet and stormy, and the wind, as it blew bitterly cold across the hills of Judah, made our walk anything but a pleasant one. In about an hour and forty-five minutes we passed a ruined town on a hill to the left, called Khirbet Abu Hamám, where a round tower in a fair state of preservation was the only noticeable feature. At a turn in the wády immediately after this were some caves, one of them, without sepulchral loculi, but with two rude pillars in front, looked as if it might have been used as a habitation. Twenty minutes further on, in Wády Khashebeh, we came to another ruin called Tell Zif, and twenty minutes further still to Khirbet el Weibedeh, in Wády Burúk. Forty minutes from this we found a still larger ruin, situated in a very rocky valley, and called Towáneh. Proceeding for another hour in a southern direction, we reached Wády Sebbeh, and turned off towards the camp of our Arabs (the Jehalín), amongst whom we pitched our tents for the night. The wind was blowing a hurricane, and a cold rain was falling at intervals. The Jehalín Arabs were encamped with about forty tents; this tribe seems to have been much maligned by travellers, for they are quite as intelligent as the average Bedawín, and the four that we had with us were willing and active fellows enough. They are quite as tractable and good-tempered as the Towarah, and quite as poor, if external appearances are to be trusted. They have a feud with the 'Adwái, and dared not promise to take us farther than Wády Músa. An hour and ten minutes past Wády Ehdeibeh brought us to Tell 'Arád, which is nothing now but a large white mound. Turning a little out of our road for nearly two hours, we came to Keseifeh, a considerable ruin extending along the ridge of a hill. The buildings were all too dilapidated to be distinguished very readily, but there was a small church with a circular apse and two monolithic columns standing, one whole and one broken, and several others were lying about. We found also traces of tessellated pavement made of square, coloured "dice" of stones like a mosaic. Another hour brought us to Tell Milh, the site of the ancient Moladah. Here are two wells of fine masonry at the foot of the hill, one of them dry and the other containing good water, surrounded with marble troughs like those at Bir Sebá. The tradition of the Arabs is that Abraham used to water his flocks here as well as at Beersheba, and that he it was who dug the wells. His dogs are said to have worn collars of gold. The lower hills to the right of the tell are covered with ruins, too dilapidated, however, for any plan of the city to be discovered; but from the traces of walls and

foundations which lie all about, it must have been of considerable extent. We camped in Wády Gabáb es Sháwari, so called from two *gabáb*, or domes, situated about three-quarters of a mile to the east of our camp. The next day (March 25th) we stayed in camp for a little rest, and about nine o'clock went over to the ruins El Gabáb, which seem to be the remains of an old Mohammedan cemetery. The larger building is a tomb of the ordinary pattern, open, with an arch facing each way, and covered with a dome. The smaller building would seem to be a well, or saint's tomb. The walls inside and out are covered with Arab tribe marks, and various old tombs lie scattered round it. Our little camp was visited by parties of the 'Azázimeh and Dhallám Arabs; the former "hoped we would not stop in their country longer than we could help, but would visit what places we required, and depart out of their coasts." They were the first Bedawín we have seen in these parts who carried spears.

After a good night's rest we rose at sunrise, and got off by eight o'clock. We crossed a broad rolling plain called Johl el Ghúleh, and in an hour and a half reached Wády 'Ararah (Aroer), where the only relics of the ancient city are a few wells, two or three of them built up with rude masonry, and some of them containing water. Wády 'Ararah heads in the neighbouring mountains, called El Menjel, in a cleft (*thilmeh*), the wady on the other side being called Es Sirr, where there are also said to be some ruins. A walk of some two hours over another rolling plain, called Er Rumail (the sands or downs), brought us to Rás Wády Abu Taráfi, erroneously placed on the maps, and there called Rás Abu Teraibeh. At this place we killed a large snake. From Rás Abu Taráfi we proceeded for fifty minutes in a south-westerly direction, and came to some ruins, probably a station on an old Roman road to 'Abdeh. About an hour more brought us to Wády 'Aslúj, and in another we had crossed over into Wády Rakhameh, where we found wells and the remains of a town, but so much dilapidated and buried as to be scarcely visible above the soil. Near this we camped, having had a quarrel with old Hamzeh about camping and carrying water. On making it up he waxed very communicative, and told us of the wars of the Arabs; it seems that when Hamzeh was a boy (he puts it at forty years, but it must be much more), the Ma'ázeh from Arabia proper and the Arabs of Gaza invaded this part of the country for the sake of the pasturage, whereupon the Gaisíyeh, Jehalín, 'Azázimeh, Arabs of Khalíl, Terabín, and Teyáhah assembled against them and expelled them from the country. A great battle was fought near Abu Tulúl by our camp of the night before, when more than eight hundred men fell, and one hundred and fifty horses were killed. The 'Azázimeh and the Arabs of Kerek have a feud, and mutually make raids upon each other's territory.

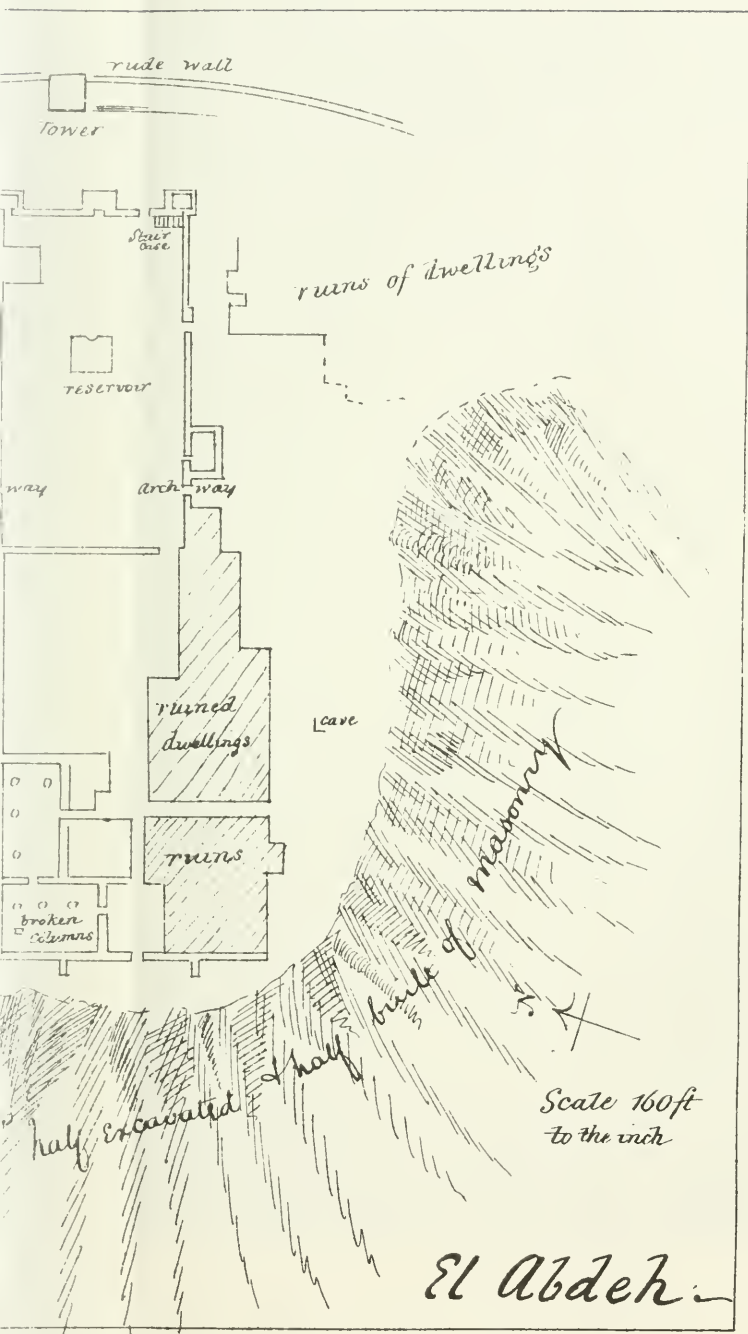
Turning out of Wády Rakhameh, we walked for sixty-five minutes over El Magráh, a broad depression in the mountains which receives the torrents of many small ravines. At the end of this was a small nagb (or pass), with some large cairns and a few graves on the watershed; this took us on to a sloping plain, not unlike that of Er Ráhhah in Sinai, and bounded

by two low ranges of mountains on either side, from which it receives the name of El Jebail. Here we were fairly inside the mysterious Jebel Magráh, and the white cliffs of the higher range at the head of Wády Marreh, Wády Abyedh, &c., were seen at the end of the vista. In the course of our walk thus far we had come across frequent traces of the same old caravan road which we had noticed at the station in Wády Abu Taráfi, and at twenty-five minutes along El Jebail we found the ruins of a small building called Heddēt Emhannah. In fifty-five minutes we had left this plain and turned into Wády el Baggár, which flows over another plain of much greater extent, and into the Dheigat el 'Amirín to the right. The view as we crossed this latter plain was more picturesque than those we have lately been accustomed to, some of the outlines of the mountains being rather fine, and the cliffs of Wády Marreh decidedly precipitous. On the plain, which took us about an hour to cross, we saw a number of the 'Azázimeh Arabs feeding their flocks. Wády Marreh itself heads at the southern edge of the plain, and descends very rapidly to a level considerably lower than the plain itself (more than four hundred feet). The pass by which we descended into it is called the Nagb el Ghárib, and the view from the top is very impressive. As well as the cliffs and mountains, there are huge "jorfs," mountains in themselves, which show that the wády is only cut through the deep alluvial deposit of which the plain is formed—it is like Wády Moweileh on a gigantic scale. The valley itself is broad and level, broken, however, by various rolling hills and mounds, and, being in a limestone district, and not relieved by any verdure, gives out a tremendous glare. We descended the nagb and went for about half an hour along the valley to the west, after which we turned up a wády called Emkaab, and camped in a small branch of it near the water, which, by the way, is very salt and filthy to the taste. We arranged with one of the 'Azázimeh Arabs to guide us to 'Abdeh, and afterwards through Jebel Magráh to Wády Jeráfeh, making first a detour to Jebel Maderah. He came with the understanding that he was not to go into the 'Arabah, as he was afraid of the Kerek Arabs, between whom and his tribe there is a blood feud, but as we wished to go through the mountains this exactly suited our views.

In the middle of the night we were awakened by the report of a gun, and immediately the whole camp was up in arms and a brilliant fire lighted. It seems that an 'Azzámí Arab had skulked up to the tent, seeking what he might devour, but a dog by which he was accompanied attracted the attention of 'Alí, one of our camel drivers, who straightway fired at the man. The latter made off, and the excitement was caused by all our men rushing about after him. In the morning the sheikh of the 'Azázimeh, with a select company of friends, came to our sheikh and swore that no one should go up to the ruins without bakhshish, but getting curt answers they went off in high dudgeon, saying that they would prevent us from ascending the pass. Having finished our breakfast we went off in spite of their threats and proceeded up to

the head of the valley (Wády Emka'ab). Here was a very steep and difficult pass, to the top of which our opponents were hastening, and as they saw us coming after them they began to get in a great rage, and bade us get back and be off out of their country as soon as possible, if we valued our lives. As we still kept on they waxed more and more excited, began firing off their guns and singing their war song. A little boy at this point made his appearance, and hearing the sounds of war and seeing our own martial appearance and that of our two Jehalín, thought that his last hour was come, and, crying bitterly, besought us not to kill him. We quieted his fears and gave him a small coin, for which and for his life he seemed extremely grateful. The 'Azázimeh had by this time taken possession of the top of the pass, and were frantically ordering us back and presenting their guns at us. We sat down after bantering them a little, which only enraged them the more, and sent up one of our men to make overtures. However, they would not let him come near, nor listen to any terms, but threw stones at him, and stood on the edge of the precipice in very warlike attitudes, and swore that no one, Muslim or Christian, should pass that way. Salámeh tried to pacify them, when the chief ruffian stood up in a most picturesque attitude and bade him get back. "Get back, O Bedawí," said he; "if you come a step further it is at the peril of your life;" and, again, "By the living God, if any one sets foot here we will roll him over as we would an ibex." So poor Salámeh had to come back, and 'Own, our other man, went up with an offer of thirty piastres. His approach with Salámeh, who again tried his luck, was the signal for a fresh outbreak, and this time they rushed at him with their swords drawn, lit a beacon fire, and yelled out, "Assemble, O Arabs, war is proclaimed!" (*Hallat el gom*). We sat below, placidly smoking our pipes and waiting for the issue, which, after a long parley, and many fresh outbreaks, resulted in our promising them eight vezaris, not quite two dollars, upon which we were allowed to ascend, and were received with due ceremony on the top. Attended by the whole assemblage, eight in number, besides our own two men, we walked on towards the ruins, over a broad terrace, up another steep hill-side, and over a plateau in which was a very precipitous ravine (like those at Serabít el Khádim, but having water and a few dwarf palms at the bottom). Crossing another line of hills we at last reached the ruins, and after resting for a few minutes began to sketch and work. 'Abdeh is situated on a lofty mountain plateau about 850ft. above the wády in which we were encamped; the west end is sheer and precipitous, and commands a fine view over the surrounding country, which is seen to be a vast plateau intersected by deep wádies, and broken up here and there by ridges of low mountains. The mountains to the west, which form the highest point of the prospect, are the head of Wády el Abyadh, and Esbeitá is situated (though, of course, concealed from view) just where that wády flows out into the plain. The precipitous end of the plateau, of which I have just spoken, is escarped and excavated with caves similar to the arrangement at Meshrifeh. The

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ruins lie east and west, and are not very imposing, though covering a considerable extent of ground. They consist of a sort of casbah, or fort, with a small collection of dwellings, &c., also surrounded by a wall, the continuation of the fort. The buildings are evidently Christian, for we found a cross sculptured over one of the doors. Some of the walls are standing to the height of about 15ft., and are composed of very regularly squared stones. To the south are the ruins of a small town or village, but no plan can be made out of the arrangement as at Esbeitá. In the Magráh, below the fort to the west, is a very perfect house with a circular hole in the roof, but we had not time to visit it. At a little distance from the town to the south-east is a cave (probably once used as a reservoir) in the hill-side, in which the Arabs fable that a "pot" (*gidr*) full of wealth lies buried. At 'Abdeh the better sort of houses are built within the fort enclosure; the hill on which it stands is defended on the land side by a stout wall; and in the centre of the fort is a reservoir.

The surrounding plateau shows traces of having once been under cultivation, and there are many of the mounds for grapes, called here *rujúm el kurúm* (or vineyard heaps), like those found in the neighbourhood of Esbeitá and 'Aujeh.

As we came down again from the ruins we stopped to drink some water at the tents of some 'Azázimeh; they were the most bare, wretched, savage dwellings I have ever seen. One half-clad, middle-aged woman, and a very old one, three or four quite naked children, and a waterskin, were the only furniture of the tent.

A little before sunset we reached camp, and old Hamzeh waxed furious and foul-mouthed at the recital of our adventures; and when the 'Azázimeh appeared to claim black mail, a great row ensued, and some one having called him the father of a dog, we were obliged to restrain him by main force from using a sword which he had snatched up. A bright thought struck Mr. Drake as the sheikh of the 'Azázimeh was counting out his money, and we asked for the pipe which the sheikh was smoking, and which he had made with great labour out of a stone, and valued highly. He gave it with an ill grace, and one of the others whispered to me to restore it, but I thanked him, and to his great disgust kept the trophy. At last they went off and we dined in peace.

Here and at other places where no Europeans had before ventured, we overcame very serious difficulties at a trifling cost; but elsewhere, where the ill-advised liberality of M. de Sauley and the Duc de Luynes and others has raised the expectations and excited the cupidity of the Bedawín, we were often compelled to pay extravagant sums before we could prevail upon them to show us a single thing. The invariable answer to our remonstrances in such cases would be, "The Emír thought it worth so much, and if you don't like the price you need not go."

I mention this because that part of our journey which lay through districts previously visited was beyond all proportion more expensive

than that through unknown parts of the country; and while professing ourselves able to deal on fair terms with the Bedawín, we were powerless in the face of such precedents as "the Emír's" lavish bakhshísh. Had we given in at first to the 'Azázimeh they would have demanded pounds instead of piastres, and we might, by paying these demands, not only have saved ourselves some unpleasantness, but have effectually closed 'Abdeh against all but millionaires. As it was, neither our purses nor our inclinations sanctioned such a course, and we preferred trusting to firmness and patience for success.

The discovery of the real site of Eboda is important in a geographical point of view, as Dr. Robinson and others have identified it with El 'Aujeh, (ruins which I have described before,) and the existence of an ancient road from Gaza to Petra and Akabah, passing through the 'Azázimeh mountains, has consequently remained a matter of great doubt.

On March 30th we walked down Wády Marreh for about seven miles, the scenery being as dull and uninteresting as can well be imagined. The wády bed is filled with fine white sand, broken jorfs rise up here and there, and ranges of low and perfectly featureless mountains on either side complete the picture. Those on the right are called Es Shahabíyeh; those on the left El Hadhirá. At the end of the latter range is an opening with a broad plain in front, called Abu Taraibeh, with the mountains of Kurnub to the left, and upon these the ruins of the same name stand, and through the same opening a wády debouches, called Wády er Rákib. Presently the plain between the two mountains, (or rather the cutting in the plateau, for such it is,) through which Wády Marreh runs, becomes blocked up by low irregular hills, through which the path takes one or two sharp turns. In the entrance to the little pass thus formed are two small stone heaps, each with a flat stone beside it, on which is cut a rude cross, the mark of the hero Ahmadí, whose exploits they are placed to commemorate. Ahmadí and Jirmí are the names of two warriors who came this way, and opposed single-handed an invading force of 500 horsemen, slaying every one. Just past these heaps (which are called Rujúm Ahmadí) is yet another, at the head of Wády Madherah, a stony-bedded valley which heads about this point. It has the same cross beside it, and is covered with tributary grass placed on it to mark the spot where the hero bathed after the heat of the bloody fight. There was good rain water collected in some pools close by. This Wády Maderah receives the waters of Marreh, and broadening out flows down to Jebel Madherah itself. Four miles farther down, the ancient road, which we had hitherto been following, branches off into the mountains of the 'Azázimeh by a valley called Umm Tarfa. We were surprised to hear from the Arabs that Jebel Madherah lay only a little farther down the wády of that name, so sending on our camels, with orders to camp in the Wády Umm Tarfa, we proceeded to ascertain if the information was correct. After two miles we reached the foot of the mountain, or rather large isolated mound, and sketched in this, together

with the neighbouring passes of Yemen and Sufáh, over which lie the roads from Hebron to Petra. We found the position of this mountain to be wrongly marked on the maps by more than twelve miles.

On the base and summit are numerous blocks of stone, concerning the origin of which the Arabs tell the following legend:—"A people once dwelt here, to whom there came one day some travellers seeking hospitality; but the people of the place did unto them a vile and horrible deed, wherefore the Almighty, in his anger, rained down these stones upon them, and destroyed them from off the face of the earth."

The legend, evidently a transplanted reminiscence of the story of Sodom and Gomorrah, is almost identical with that given by Strabo, who calls the site of the perished city by a similar name *Moarðda* (Strabo XVI., cap. ii. 44).

The whole of the wády and road from the Nagb Gharib to Madherah, being the road by which the hostile tribes from the east invade the 'Azázimeh, is marked by stone heaps, each of which commemorates some incident of Arab warfare, for they indicate the spot where either a horse was slain or a combatant fell, or else they are breastworks thrown up as a shelter to shoot from. The most frequent and imposing are said to belong to the horses. The immediate neighbourhood of the *rujúm Ahmadí* is covered with these cairns, and undoubtedly some great conflict did take place here, perhaps before the Arab times. We were enabled to "take a rise" out of the 'Azázimeh who had troubled us so at 'Abdeh, by giving out that we intended going to Madherah, though we did not really mean to ascend the hill. They posted off to defend the ascent, and were waiting for us on the top, as Selím (our guide) told us. He offered to go on and make peace, and was so disgusted when he found that we did not even want to go up, and that there was no bakhshish to be got from us, that he turned back and left us to find our way to camp by ourselves. The 'Azázimeh were waiting at Madherah fondly expecting us, and reckoning on a scene and spoil, while we were comfortably jogging on our way. Near our camp in Wády Umm Tarfa were some pleasant pools of rain water, in which we took a bathe before dinner.

Our journey the next day lay through as ugly and uninteresting a piece of country as can well be conceived, passing over the top of the plateau of the 'Azázimeh mountains, black rough ground, totally destitute of animal life, and with very little vegetation, and that only in the wádies which intersect it. The plateau is not level, but, as might be expected, is covered with low mountains, little better, however, than inequalities of the ground on a gigantic scale. We began the day with a disturbance; Selím, the 'Azzámí guide whom we had brought with us, turned out a perfect brute beast, and since the affair of Jebel Madherah seemed much inclined to show his teeth. His temper was not improved by my bantering him before we set out, and when we were fairly under weigh he became sullen and morose. At this the sheikh flew into a violent rage, told him to be off, and was going to beat him with a stick which he had in his hand, when the scoundrel drew his sword,

and glaring fiercely and swearing horribly, was proceeding to execute his threat of demolishing poor old Hamzeh, upon which we interfered, and with some difficulty made peace. At last we got off, and wandered through the dull featureless hills amidst a thick desert haze, which did not add to the beauty of the scene, until we came to Wády Hanjúrah el Gattár. This is a broad valley which flows down into Wády Madherah; the sides are steep and precipitous, from two hundred to three hundred feet high; but as both sides are exactly of the same height, and perfectly straight on the top, the valley looks like a huge ditch. The bottom is paved with smooth but uneven limestone, and contains a few shrubs and pools of rain water at long distances apart. Before striking the path which runs alongside the valley, we stopped at the head of one of its little tributaries to look at three *beden* (ibexes) which were perched provokingly near on a neighbouring height, gazing with astonishment at such unwonted intruders on their solitude. Near the same spot was a little heap of stones, with the mark of the Haweitát tribe upon it. At the head of the tributary wády was a sort of oven, which Selím called *Zarb el Bedan*, and said was used to cook or store the flesh of any ibex the Arabs might shoot. At the head of Wády Hanjúrah, which begins very suddenly and precipitously, are a few retem bushes and a fine seyal tree. Here a road turns off by Mirzebeh and 'Ain el Weibeh to the 'Arabah, but we preferred keeping straight through the 'Azázimeh country, uninteresting as it is, and accordingly struck off to the east, until we again came to Wády Umm Tarfá, near the debouchure of which we had camped the night before. At the watershed of this wády we were shown cairns both in the bed and on a hill close by, which marked the place from which some invading horsemen had been shot, and where man and beast fell. The valley on the other side is called El Guleib. Resuming our walk over the rolling surface of the plateau, we reached a nagb, or rather series of three nagbs, called Nagb Ibn Már, a pass very steep and rugged, and one thousand feet above the sea-level. Descending by this, we found ourselves on a broad open space, which might almost be called a plain, and from which several large valleys, the principal ones being called Wády Rámán and Wády Abu Taraimah, flow down into the 'Arabah. The elevation of the mountain near the Nagb Ibn Már is about 2,000ft., the same as that of Jebel 'Araif, which last, however, is considerably higher than Magráh. This shows that the plateau gradually lowers until it falls away, in a series of precipitous steps, into the 'Arabah on the east, and towards Jebel 'Araif to the south, terminating the plateau of the Azázimeh mountains, and again rising until it forms a second step at Jebel 'Ejmeh, the southern limit of the Tih. Again our guide became unmanageable, quarrelling with one of our men, 'Own, and drawing his sword, and again we had to repress him. He was very surly for the rest of the day, and when the sheikh offered him a piece of bread he threw it at him, and went off grumbling to "find some friends to give him a supper, as he wouldn't eat with them." Our men were very apprehensive of molestation from the Arabs of the neighbourhood, and a strict watch was kept

throughout the night. A little girl turned up at our camp on her way to 'Abdeh, having come by herself from a place called Hesmeh, a six days' journey beyond Akabah, without bread or water, eating only a few herbs to support herself by the way. The distances during this day's journey were as follows:—Camp to head of Wády Hanjúrah, 60 min.; Wády Hanjúrah to Nagb Ibn Már, 145 min.; Nagb to camp, Wády in Abu Tareimeh, 55 min.

Crossing the wády in which we had encamped, and over a small watershed, we turned into Wády Gateifeh, a broad open valley, with rather finer scenery than we had lately been accustomed to. Here and there a little sandstone begins to peep out from beneath the limestone, and is sufficient to account for the improvement in the outlines of the landscape. From this we turned into Wády Rámán, some distance up which on the left we came upon a pool of rain water. Presently passing over a nagb about 180ft. high, we found ourselves within a few miles of the edge of the 'Azázimeh mountains, and could see the 'Arabah beyond. In the hills to the north was a ruined castle with a road beside it, called Cala'at Umm Guseir, probably a station on the old Roman road to 'Akabah. It is not unlikely that this name, Umm Guseir, may be identical with the ancient and hitherto unidentified station of Gypsaria, marked upon the Peutinger Tables. There is no other fort or ruin intervening between this and 'Abdeh, nor indeed would one be needed before the edge of the mountains. The road by the fort joins our own road in Wády Rámán, and there is no other route through the mountains but the one by which we came, and which Dr. Wilson had already supposed to exist. Selím, our 'Azzámí guide, having left us, we could not at first find our way, but after looking about for some time, we struck a road which comes direct from the fort above mentioned, and following this we emerged presently into the Wády el Jeráfeh. Here we began to search for water, as we had been on short commons the previous night, but we did not succeed in finding any until we reached Wády Ghamr, three hours after leaving camp, and even then it was only obtained by digging out some pits, or *themáül*, which had been filled up by the seil. As there was no water to be procured farther on in the 'Arabah, we encamped at this spot. Wády Ghamr is a broad valley, with an immense grove of *tarfuh* trees, and the verdure contrasting with the red colour of the sandstone, which here begins to show itself more plainly, was a pleasant relief to the eye after so long a sojourn in limestone districts.

Here again we found previous maps considerably at fault: Wády Ghamr is described as a smaller wády, taking its rise in the 'Azázimeh mountains, and flowing into the 'Arabah from the west; and Wády Jeráfeh is set down as a larger watercourse, flowing down from Jebel 'Ejmeh, and meeting the waters of the Ghamr at the south-east corner of the Magráh mountains. The real fact, however, is, that Wády Ghamr takes its rise to the south-east of Jebel 'Araif, flows round the base of the lower plateau, into which we had descended from the Nagb Ibn Már, and receives the waters of Jeráfeh from the north. The whole appear-

ance of this mountain district is desolate in the extreme, and although we found water in many parts of our route, the 'Azázimeh who inhabit it are some of the poorest and most degraded of the Arab tribes. We did not complete the exploration of their country without experiencing considerable opposition and annoyance, but owing to the light baggage with which we travelled, and the unpretending appearance of our *cortége*, we were enabled to overcome the difficulties, and to escape without any serious mishaps.

We were thoroughly glad to escape from the 'Azázimeh country, for in addition to the inhospitable character of its inhabitants it is one of the dreariest and most uninteresting regions which it is possible to conceive. Except in the case of one or two slight deviations, we kept for the whole way on a broad caravan track, which had the appearance of not having been used for a great length of time; it is rather damaged in places, but there is still a good road right through the mountains, and our guide affirmed that it was the only one. The ancient road probably came through the Dheigat el 'Amirín to 'Abdeh, then branched off to the Nagb el Ghárib, went down Wády Marreh, turned off into the mountains at Wády Umm Tarfá, and followed our track through them, coming past Cala'at Umm Guseir and by Wádies Jeráfah and Ghamr into the 'Arabah; by this route much time would be saved in a journey from Gaza.

On April 4th we left Wády Ghamr by the low hills just above the camp, and were soon in the 'Arabah, and from the sloping sides of this we could see distinctly how the 'Azázimeh mountains terminated at Wády Ghamr. We crossed the 'Arabah diagonally, keeping a little to the south-east; the walk, about twelve miles from camp, was a very fatiguing one, lying entirely over *himádah*, or sand covered with flint; the Wády el Arabah itself is about five miles wide. The range of mountains in which Wády Músa is situated presented rather more picturesque outlines and colouring than those to which we had lately been accustomed. They consist of a ridge of igneous rock, principally porphyritic, which crops up in the midst of dark red sandstone, occasional strata of a lighter colour lying upon the porphyry mountains themselves. We entered them by a small winding wády in the edge of the limestone, and proceeding up this for about four miles ascended a *nagb* (pass) some 1,400ft. above our last camp, and pitched our tents on the plateau at the top, immediately to the north-west of Mount Hor, or, as it is called by the natives, Jebel Hárún. The peak is a fine jagged one, and towers conspicuously above the neighbouring heights; it is surrounded by a little white building, covering the reputed tomb of Aaron. The only thing of any interest which we met with in the 'Arabah was a, to us, new tree, called the *ghadha*.

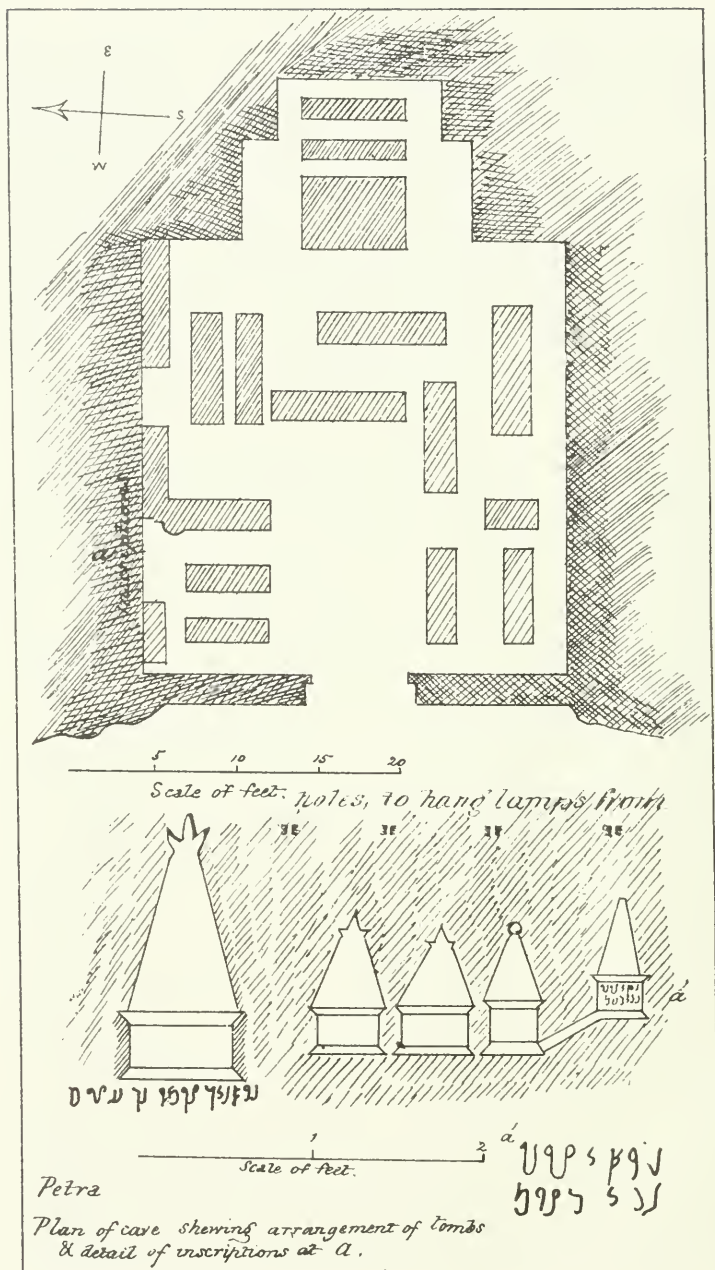
Early the next morning we ascended the Nagb er Rubá'i, and then turned off to the left towards the summit (1,400ft. above the camp) of Mount Hor in order to "steal a march" on the Arabs of the place, who are very exorbitant in their demands on travellers.

It is a fatiguing climb of about three-quarters of an hour from the top of the Nagb, and rises to an elevation of more than 4,000ft. above sea-level. At first our path lay over a long white block to the east of the mountain; and for the rest of the way we had to climb up the rugged red sandstone of the summit. Thus far we had got on well and still escaped unobserved; but just as we reached the foot of the summit a boy, who was tending goats, saw us, and going off to a high ridge began shrieking out wildly to the Arabs in the wády. The alarm was soon given, and all the time of our stay we heard constant shouts and firing from the Arabs as they gave the alarm in the valley below. On reaching the small plateau immediately below the summit, the first thing which met our eyes was a heap of ruins, and, beside the rock, a huge black cauldron used for boiling the sheep which are there sacrificed to Nebi Harún, the Prophet Aaron. A flight of steps cut out in the rock leads up a steep precipice to the tomb itself, and about half-way up these steps is a large cistern or chamber covered in with arches, over which the staircase is built. The tomb is an ordinary Muslim weli; the door was locked, but we contrived to look inside, and saw that the roof was decorated with ostrich shells and similar ornaments. Over the door is an inscription, stating that it was restored by Es Shim'áni, the son of Mohammed Calaón, Sultan of Egypt, by his father's orders, in the year 739 of the Hijrah. Having stayed long enough to complete our observations, and allow Mr. Drake to make a sketch of the summit and surrounding landscape, we came down by the side nearest the valley, which is very steep and precipitous, the path being often very difficult to find. As soon as we reached the valley we luckily came across our own camels, but were immediately set upon by a party of the Ma'ázeh, an awful set of ruffians, who accused us of having "visited the prophet" by stealth, swore that they would confiscate one of our camels, and otherwise made beasts of themselves. Our men, however, especially 'Own, who had accompanied us in our somewhat perilous attempt, swore that we had not done so, and after giving a few piastres we got rid of them. We were then making for our camping-place, and had nearly reached the solitary pillar called Zibb Far'un, which marks the site of an ancient temple, when a furious shouting was heard in the valley, and about twenty or thirty armed men were seen rushing down upon us. We were quite prepared for a scene and a row, but, thrown off their guard by our appearance, and the Arabic greeting which we gave them, they met us with friendly demonstrations, and rushed off shouting as before, and saying that the enemy were upon them. It was now apparent what had happened; these were the Liyátheneh, and having heard the alarm given by the boy, and replied to by firing from the Arabs below, they imagined that a hostile tribe had attacked the place. We walked on as far as the side wády, in which the amphitheatre is situated, and there encamped. We had hardly got settled, however, before the Liyátheneh returned, having learnt the real state of the case, and began at first to make a disturbance, and swear

that we had been up "Aaron," but after some discussion we succeeded in pacifying them. One fellow, the brother of the sheikh, was actually civil. They brought us a goat, and killed it upon the spot, all of them staying to partake of the meat, and to "watch over our tent at night," a little piece of civility which cost us nearly three dollars.

The colouring and outlines of the rocks are very fine, but the general effect of the tints is not so magnificent as we had been led to expect, being of a deep chocolate. But when you come to a piece of the rock that has been cut or excavated, it is really magnificent, red, white, and yellow streaks coming one upon another, and giving in the sunlight the effect of gorgeous watered silk. The excavations are very curious, many which we saw having certainly never been tombs, but dwellings; we had not, however, leisure to do more than just glance at them then, as our time was fully occupied in keeping a sharp look-out after the fellahín.

On April 6th, after having been kept awake the greater part of the night by the noise and disputing of the Arabs, we were aroused before daylight by the arrival of the mules which were to take us up to the Liyátheneh encampment, so making a hurried breakfast of dry bread and tea, we started off. Passing by the amphitheatre, we entered the Sík, a narrow cutting about two miles long between high and precipitous cliffs, and which in beauty of colour and grandeur of form exceeds even the glowing descriptions which have been given of it. Emerging from this, we came out into a more open country amongst limestone hills. Here several tombs are excavated in the white limestone, and amongst them also are a few detached monolithic monuments resembling that known as the tomb of Absalom at Jerusalem, but without the conical roof which distinguishes the latter. Passing the village of Eljí, we ascended the hills for an hour and a half, and at last reached the camp of the Liyátheneh, which consisted of about a hundred tents arranged in a great square, with a double row forming a street on either of two of the sides. As we neared the place we were met by a party of men from the camp, the Sheikh Silmán amongst them, who at once began quarrelling with the men who had brought mules for us, and claiming a share in the hire. Our tent was pitched in the centre of the square, and we were immediately surrounded by the most scoundrelly gang conceivable, who kept on incessantly begging for everything they could think of, and it was as much as we could do to keep them from picking and stealing. In the mean time a great and hideous row was going on between old Hamzeh and the sheikhs of the fellahín about the amount of black-mail which we were to pay. The terms ultimately fixed upon, though very exorbitant, we were glad to accept, if only to rid ourselves for a few hours of their irritating noise and squabbles. Towards the end of the afternoon we took a walk to the eastern end of the camp, where, at the head of a valley, is a well, and the remains of a ruined village called 'Ain and Khîrbet D'háah. In the evening some 'Ammarin Arabs who had been sent for to take us east-

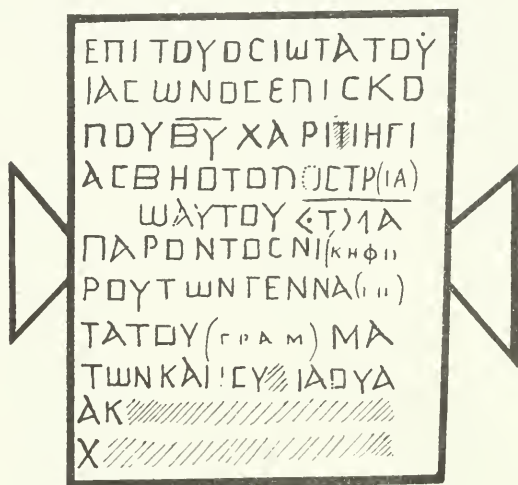


ward appeared, and, to add to the pleasures of the day, we found that neither they nor the Liyátheneh could take us to the Darb el Hajj, as the Arabs were fighting there. Here a question of some difficulty presented itself with regard to the expedition to Moab, which it had been arranged that I should undertake. The obvious and cheapest route was to return to Jerusalem and enter the country by the territory and under the escort of the 'Adwán. To take the eastern course involved passing through a country already embroiled in warfare, and amongst tribes whose lawlessness and rapacity are proverbial even amongst the Bedawín themselves. Several considerations, however, determined us to take the latter course. The 'Adwán and Skhúr Arabs had been employed in the affair of the Dhibán stone, and being "posted up" in desert news, we knew that they had not only searched in vain in their own country, but had been unsuccessful in their attempts to discover several "written stones" said to be in the possession of the Hamaideh and Beni Hamídeh, the tribes whose opposition caused the lamentable destruction of the celebrated monument of Meshá. We accordingly resolved to brave the risks and enter into negotiations with the last-mentioned tribes, unprejudiced by the presence of strangers, whom we knew that they regarded with no small suspicion and distrust. We accordingly made arrangements with the 'Ammarín that they should conduct us to Shihán in Moab for twenty napoleons, and consign us to the Beni Hamídeh Arabs there.

In the night we were visited by a severe storm of snow and sleet, and as our camp was 4,700ft. above sea-level we found it bitterly cold. Notwithstanding this, however, we took with us the next morning four of the villainous fellahín, and went down to visit the valley. Passing the village of Eljí, which consists only of a few rude stone houses, we reached the bed of the wády, and passing the ruins of 'Aireh on the opposite (west) hill, and crossing a running stream and some cornfields, came to the commencement of the rock-hewn tombs and dwellings of Petra. The rocks before reaching the Sík are mostly white, and there is consequently less beauty of colouring, but the quaint excavations even here are well worth a visit. The principal of these are, first, a temple with Corinthian columns, and two side aisles, on the hill-side beneath 'Aireh; second, a tomb with four pyramids on the top, which has been photographed by Mr. Bergeheim, of Jerusalem; thirdly, three tombs cut out of the solid rock, and, like those mentioned above, somewhat resembling the tomb of Absalom at Jerusalem. The scene presented to the view on entering the Sík is romantic and beautiful in the extreme,—a narrow passage between high perpendicular cliffs of the richest hue, and spanned by an arch built high up on the rock, and now quite out of reach, which anciently carried an aqueduct from the heights above. Below trickles a clear sparkling brook, and the whole entrance is filled with oleanders, while creepers hang in luxuriant green festoons from the walls. The more you advance, the narrower and grander the gorge becomes; about

half-way down it, on the left-hand side, are some little square cuttings in the wall, evidently intended for tablets, and some niches, which have been described as having contained statues, but which are not only too small, but are filled up with carving—in one a tree pattern could still be traced. They are undoubtedly dedicatory altars, and beneath them we found five or six imperfect Greek inscriptions. At the end of the Sík, or rather where it takes a sharp turn, you come suddenly upon the Khazneh, which in beauty of form and colouring surpasses all the rest. The stone of the façade is of a delicate but deep rose-colour, and that of the uncut rock around it varies from every shade of red to chocolate. It has a little space in front filled with oleander and green grass, which add to the beauty of the scene. At the corner of this space is a small ravine, up which a flight of steps once led. The object of the temple, and the interpretation of the architectural ornaments upon it, have occasioned much discussion, but I was enabled, by studying the details carefully, to solve the difficulty, and I feel sure that a reference to Mr. Bergheim's photograph of the Khazneh will convince any antiquarian that my hypothesis is correct. Over the façade is a half-obliterated ornament which has been variously described, but which a more careful inspection proved to be a lyre, and the figures, *nine* in number, instead of being "armed and winged," proved to be draped female statues. The shape of the façade, and the curious round ornament in the centre, were evidently selected so as to admit of the symmetrical arrangement of the nine female figures, which I have no doubt whatever were intended to represent the nine Muses; the figure of Apollo would have spoilt the symmetry of the whole, and, accordingly, we have his emblem, the lyre, introduced instead. The mysterious excavation, then, is nothing but the *Musæum* of Petra—not what the Turks would call an "Antiquity House," but the Philharmonic institution of the place. Another turn brings us into the amphitheatre; the view from here is perhaps one of the grandest in the place, as it takes in nearly all the excavated parts of the valley. The boxes or loculi (or tombs, as they have been called) above the seats of the theatre have really nothing to do with its plan or construction; the fact is that they must have existed *before the theatre was cut out*, and their faces have been cut away in hollowing out the auditorium. There is no possible means of getting up to them now, as all the front parts are cut away to suit the exigencies of the case. On your right as you emerge from the Sík, and immediately opposite to the theatre, are some tombs with very perfect and elegantly constructed fronts. The first of these has a curious arrangement of graves or loculi; they are cut in the floor, not lying in any one direction, but placed all ways, so as to make the most of the room. On the wall to the left of the entrance are some rude representations of sepulchral monuments, and beneath these two Nabathæan inscriptions. Similar representations of tombs occur on several of the excavations; they are in shape something between an obelisk and a pyramid, and apparently

Petra.



in red paint. Inside large tomb.

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ΑΗΜΑC
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Fragments of inscriptions in the Sîk.

indicate the ordinary pattern of sepulchral monuments in use amongst the Nabathæans. A little farther on are some arched terraces connected with excavations below, and immediately above these, though having no other connection with them, is a very fine excavated temple, with an elaborately carved front. The inside originally contained six loculi, or recesses, which have since been made into three, and rounded at the top to form apses, the place having been subsequently turned into a Christian church. A Greek inscription in red paint records the fact of its consecration, but the latter part, containing the date, is illegible. The pleasure of our sight-seeing was marred by the uncomfortable state of the weather and the constant importunities of the fellahín who accompanied us. They did not, it is true, attempt any real or pretended violence, but their annoyance was almost as great as if they had. There are many tombs and dwellings, which are now inaccessible, but traces of staircases cut in the rock, and now broken away, may be seen everywhere. Amidst snow and biting cold wind we returned at last to our elevated camp. All the next night snow and hail fell constantly, and continued during the next day, so that we were soon six inches deep in snow. We of course stayed in all day, and kept ourselves as comfortable as the weather and the annoyance caused by our neighbours would allow. On April 9th we again visited the valley, and spent some time in copying the inscriptions on the Sik, &c., after which we examined the ravines in the western cliffs, but found nothing of interest, except that here the ornament over the doors was of a different shape, and more like a Norman arch. The oleanders and tarfah-trees which grow in these ravines make the scene extremely beautiful and romantic. At the northern turn in the wády, as you leave the western acclivities, are three large tombs with perfect fronts, the first and largest of them is called Magháret en Nasára, or the Christian's Cave, and was at the time of our entry occupied by several families of the fellahín. Every tomb has its owner, who dwells there with his wives and family during the cold or wet weather. Just past this is the ravine in which Irby and Mangles found the Sinaitic inscriptions; it is on a large temple, with a fine front, having four attached columns, and is partly built up with masonry. Unfortunately, we did not at the time remember their description of it, and passed it by, as our time was limited for that day, and we did not care to climb upon the somewhat rugged platform on which it stands. It was described to us as large enough to hold fifteen families. On the opposite side of the ravine is a little winding cleft in the rock, at the entrance to which were some small dedicatory altars, but as it was at the time more than knee-deep in water we had to leave it unexplored. We returned to camp by ascending this ravine, and in a few minutes reached the ruins of the village of 'Aireh. A little ravine branches off to the left, with an arch spanning it, and carrying an aqueduct from the heights; it is called Gantarát bint Far'ún (Pharaoh's Daughter's Arch), and the ascent to the east is named Besatín Far'ún, or Pharaoh's Gardens. There are several ruined houses about, and a fort at the top of the left-

hand ravine, occupying a most commanding position, as it overlooks the entire valley, and defends the only part not protected by some difficult mountain pass. The path to the top of the ravine was very rugged and difficult, and we had frequently to creep between narrow crevices of rocks to get along at all. A well-made aqueduct runs along the whole way. On one of the rocks was scratched a rude representation of the front of a tomb, with the staircase ornament instead of a pediment. The next morning we were again kept in camp by the cold; the noise by which we were continually worried was this day increased by a divorce cause which was being heard in the "Shigg," or public reception tent, before the sheikh. One of the fellahín brought in a white macintosh stolen from some former traveller, and offered it for sale for twelve piastres, but we did not like to produce so much money for it before such a set of villains.

At last, on April 11th, after a very noisy start, and having had to look very sharp after the baggage, we got away, followed, however, by a great number of the Liyátheneh, who would have been even more importunate and troublesome had we not given the sheikh an extra bakhshísh to keep them in order. We went over the hill by the fort of 'Aireh, from which we obtained a splendid view of the whole of Wády Músa, and followed the road over the mountains to the north-east, which is called El Barcidhí. Here we were told of two ruined cities, Dibdibeh and Bannoureh, to the right. In about three hours we reached a flat plateau with a few large but straggling crags upon it, and found ourselves at a cave with a large square chamber and a vestibule, in which we encamped. The front of the cave had been long since destroyed, but a portion of the lintel was lying on the rocky platform in front of it; on either side of the vestibule was a smaller chamber, the doors of which had evidently once had stone lintels inserted in them. The great door had a window on the left-hand side; this was Wády Beidhá, once the site of an ancient city, of which a few stones only remain now. The Liyátheneh having deposited our luggage, asked for a breakfast and bakhshísh, but as we had now left their territory, and the 'Ammarín were beginning to collect, we defied them, and flatly refused to give them a penny, at which they went off in great disgust. Two ruffians, however, stayed behind, one named Ibrahim el Hasanát, a smooth-spoken scoundrel, but one of the most dangerous in the gang, and the same man who fired upon a party some time before and dangerously wounded their dragoman. This fellow so frightened the 'Ammarín by refusing to go, and threatening to shoot some one, that at last we gave him a trifle to get rid of him at the instance of the Arabs, and he took a pathetic farewell of us, during which time, however, we took the necessary precaution of standing to our guns. Our beds were strewn in the cave, but as the floor was some feet thick with goats' droppings, the fleas and odours were anything but pleasant.

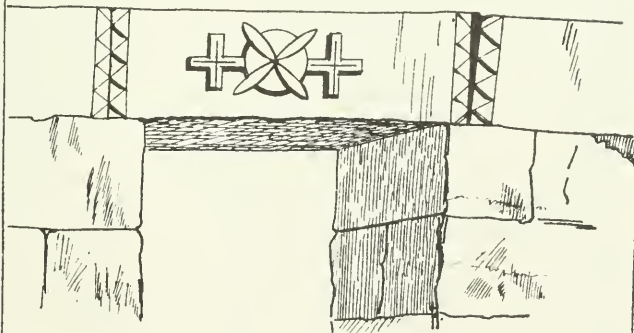
The fellahín of Petra are of so decidedly a Jewish type that Dr. Wilson and others have imagined them to be the descendants of those

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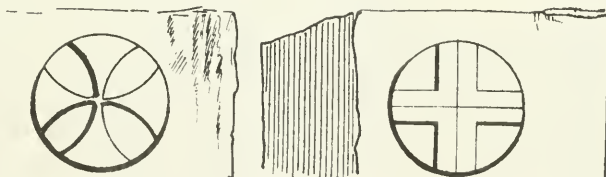
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Fragments of inscriptions from the Sîk Petra



Doorway at Umm Rasas



At Umm Rasas

Simeonites who settled in Edom. This view is erroneous, as it is clear that their immigration into the country dates after the Mohammedan conquests. They are the Liyátheneh, that is, sons of Leith, a lineal descendant of Kaab, and a branch of the Kheibari Jews, who resided near Mecca, and played so important a part in the early history of Islam.

The Kheibari are still found in large numbers about Mecca and Medina, and are much dreaded by the Hajj caravans, as they invariably rob and murder any unarmed stragglers; by Dr. Wolff and other learned travellers they have been identified with the Rechabites mentioned in Jeremiah xviii. 2. The same lawlessness and cowardice characterise the Liyátheneh of Petra. Although professing themselves to be Mohammedans, they are laxer in their religious discipline than even the Bedawín themselves, whose observances are really more Sabæan than Muslim. The Liyátheneh retain not only the distinctive physiognomy, but many of the customs of the Jews, such as wearing the Pharisaic love-locks.

Our Jehalín camel-drivers were not allowed to remain in Wády Músa a single day, and even could they have stopped they would have been unable to accompany us any farther, on account of their blood-feud with the Arabs to the east of the 'Arabah.

The fellahín having left, Selámeh ibn 'Awwád, the sheikh of the 'Ammarín was at first all smiles and fair promises, and began to recount to us his own troubles, telling us that Wády Músa belonged to him and to his ancestors, but that the Liyátheneh a few years back had taken it from the 'Ammarín by force of arms, and were confirmed in their possession of it, conjointly with the Haweitát, by the Turkish officials, at the instance of Rafá'i Bey, who was then at 'Akabah. Presently, while we were at dinner, we heard a great disturbance, and found that he had changed his tone, and in spite of his solemn promises to take us to Shihán for the twenty napoleons, was demanding exorbitant sums for *rafk*, or black-mail. Old Hamzeh came in looking more mad than usual, and after beating his breast, and making an insane attempt to tear his clothes, sat down on my bed, and suddenly plucking two handfuls of hair out of his beard, presented one to each of us. At last we got out of him that the rascal Selámeh had declared that he would leave us where we were for the Liyátheneh to rob and perhaps murder us, and with the certainty of starvation, unless we paid another thirty pounds for *rafk*. This sum was ultimately reduced to eleven napoleons, which we had to pay with the best grace we could.

On April 12th, the camels not having yet arrived, we went out in the morning with a couple of men to visit the ruins of El Beidhá and El Bárid. A little way to the south-east of our camp was a large cave, some 15ft. up in the rock. On examining it closely it turned out to be an immense reservoir, with three compartments cut in the solid rock, and containing now a good supply of water. A flight of steps led down to the water on the left hand, and the ceiling and walls were plastered, the cornice being

ornamented with a line of red and black paint, and a fringe of the impressions of human hands also alternately in red and black paint. There is a channel cut in the face of the rock above; and in front of the reservoir itself (which is so arranged as to project a little into the platform) was once a wall for the stream to shoot against, and so run into the chamber. When there is rain the Arabs hang a large bush against the face of the rock, which serves the same purpose of conducting the water into the reservoir, and preventing it from dashing over and wasting as it would otherwise do. A little farther on is a small rock-hewn temple, having a façade composed of two columns and a pediment, surmounted by a small urn, after the pattern of those in Wády Músa. From the appearance of the flight of steps leading up to it, and the diminutive size of the interior chamber, it would seem to have been left unfinished. Immediately after this point you enter a narrow ravine, or Sík, which has been once closed by a door, the sockets being still visible. After a few minutes the ravine widens out, and you enter a street of dwellings, temples, and cisterns, all cut out of the rock, not so elaborate in their details as those in Wády Músa, and wanting the beautiful colouring of the latter, but still very pretty, and apparently of older date. At every point are staircases in small clefts, and sometimes in the face of the rock, most of them leading merely to "high places" and platforms, designed perhaps for sacrificial purposes. Some of the temples have plaster on the walls, rudely painted to represent stones. One has a very elaborately painted ceiling with a pretty device of flowers, festoons of grape-vines and convolvuli, and cupids playing about on the branches; one of them holds a drawn bow. The execution is by no means contemptible, and is apparently Roman. As you emerge from the Sík there is a temple on the left with a very elaborate façade of four columns. The whole ravine is full of oleanders and carpeted with the softest grass: it terminates abruptly in a narrow cleft, at the top of which is a temple, and the façade of this has fallen down and blocked up the way. The city or village is called El Bárid, and was undoubtedly Horite in its origin, as the excavations are obviously in this case *all* dwellings, but they have been occupied by a later people. On the rocks on either side we found several Nabathæan inscriptions. The Arabs have a tradition that the former inhabitants found a door in the rock leading to a rich and fertile subterranean land, with which they were so pleased that they entered it, made their dwellings therein, and closed the door behind them for ever. At the end of the day, when we had returned to our cave, some more of the 'Ammarín Arabs came up and another diabolical row ensued, ending in their refusing to take us on unless we paid an additional four napoleons.

At last, on April 13th, we got off, and leaving the scattered rocks of Beidhá, entered a fine Sík, called Abu 'Alda, and leading to a valley of the same name. Here again the rocks assumed the gorgeous colouring of Petra, being in fact a continuation of the same range. The rugged and overhanging cliffs, and the thick forests of tarfah and oleander,

made the scenery magnificent. At the end of Wády Abu 'Alda is the basaltic chain which we had noticed on first entering the mountains of Edom. Crossing a spur of this we came into Wády Sumra, which we ascended to the Nagb Eshkárt Emsa'ad, and from this came down again for a short distance, and then mounted to the Nagb Nemelah, from which we once more caught a glimpse of the 'Arabah and of the distant mountains of the 'Azázimeh. On the first pass we were joined by some Arabs who began to demand from Selámeh a share in the plunder, and it ended in his making fresh demands upon us at night. When we abused old Hamzeh for his incapacity and for promising money in our name, the old fool whined out that he could not help himself, and undoing his girdle, prepared to strip himself and hand us his shirt by way of showing how helpless he was. Half our trouble and expense was due to his allowing the Arabs to worry and frighten him. Before starting on the following morning they demanded from him the two and a-half napoleons which he had promised that we should pay, and, presenting their guns at him, threatened to murder him unless he complied with their request.

Scarcely was breakfast over before we had another row, the brute Selámeh demanding that we should pay for his *delúleh*, i.e., the camel on which he himself rode, and we were powerless to resist, as he took the camels away and refused to go on. Hamzeh, with his usual stupidity, stepped in as I was bargaining and spoilt my chance of beating him down. Our course lay along the eastern slopes of the 'Arabah, but as the wádies and seils here are very featureless, and a thick desert haze hid the mountains on either side, there was not much to interest us. A hot wind was also blowing, which did not add to the pleasure of our walk. Towards sunset we reached Samrat Fiddán, where we intended to encamp, but just before entering it we espied a company of Arabs armed and mounted on camels. Preparations were at once made in case of an attack by the strangers; our own camels were drawn aside beneath the shelter of a rock; and each of the party examined his arms and prepared to use them if necessary, while Selámeh and one of the men, throwing off their 'abbas and keffiyehs, rushed forward to meet the strangers and find out whether their intention was peace or war. There is something rather pleasant in the uncertainty and excitement of such a moment, though we were not sorry to see both parties embrace and find that the newcomers were members of the same tribe, and that they consisted of Suleimán, another of the 'Ammarín sheikhs, and some men who had been to Kerek for corn. It turned out though, after all, that we had little to congratulate ourselves upon, for Suleimán at once began a row with Selámeh about the right of passage, and, seizing one of the camels, declared that none of us should pass until he had been paid a black-mail. The two got into a frightful rage, called each other by all the polite epithets which *very* vulgar Arabic could afford, and were soon in the arms of their mutual friends and retainers, rushing feebly towards

each other with drawn swords. As yet we had not been asked for anything, and rather enjoyed the exhibition. Presently things were apparently settled, and Suleimán came to beg pardon of us for having made a disturbance. We found that some soldiers had been or were at Shihán; and, on learning that our destination was the same place, the Arabs had thought it safer to conclude the matter peaceably. Farj, the brother of Suleimán, who had come with us from Beidhá, was still obstinate, but he was sent home, and Suleimán took his place.

In the morning we found that Suleimán, who was a smooth-spoken scoundrel, had renewed his claim, and that Selámeh had given him a napoleon and lent two more to Hamzeh to be given to him on our account! We utterly repudiated his right to do anything of the sort, and swore that, come what might, we would not pay another farthing. They pretended to give in, and we at last got away. Crossing from the tarfah grove in which our tent was pitched, we came into Wády Fiddán itself, a pretty valley with a deep swift stream of running water in it. We then turned off by some rocks of conglomerate; one of which is naturally arched, and is held in reverence by the Arabs, who visit it and hang up offerings in front of it, regarding it as a well, or saint's tomb. It is called Umm ed Duhúr, but they had no tradition to account for their observance, which they say arises merely from ancestral custom. A piece of flat table-land brought us to Wády el Weibeh, by which we descended into the 'Arabah. A dreary piece of desert with a large *kethíb*, or sand hill, had next to be crossed, and passing successively Wádies Salamán and Seil Dhalal on the right, we reached Wády T'láh about one o'clock. Here was a stream of water, a large ruined *birkeh* (or tank), and the foundations of a fort, with the remains of a small village attached thereto. It was evidently another station on the old Roman road from Gaza, and probably a branch turning off to Arabia. The Hajj route at the present day turns down the wády which we had crossed just before, viz., Wády Seil Dhalal. Here we rested for two hours, and set off about three o'clock so as to reach the encampment of the Ghawárineh Arabs by night, and avoid the fatigue of a walk across the ghor in the heat of the day. The view was by no means a tempting one; the haze still continued, and revealed only a piece of white broken desert, the dreariest we had yet seen. Nor were our spirits cheered by seeing one of our camels drop its load and both our boxes roll over in the sand. Old Hamzeh surpassed himself in idiocy at this misadventure, for he had a notion that Mr. Drake's tin box was full of gold; he slipped down off his beast, without any shoes on, and rushed up to the spot, when seizing a great stone heaved it feebly in the direction of a passing Arab, swearing horribly all the time. Luckily nothing of any importance was lost or broken. Descending some low cliffs we came about sunset into the Ghor itself. It is a low flat piece of ground with a soft sandy soil filled with vegetation, the most noticeable trees being (1) the '*osher*, or apple of Sodom, a tropical plant with a fleshy leaf, which, as well as

the stem, on being broken yields a plentiful supply of milk said to possess blistering qualities; the milk of the 'osher-tree is said also to possess wonderful properties in assisting the ladies who drink it to increase the number of the household of their lords. (2) The *rak*, a plant with small thorns, and bearing a tiny fruit growing in bunches, and in shape and taste somewhat resembling our currants. Here and there swift copious streams of running water come down from the mountains, fertilising the whole of the district. We passed in succession the following *seils* (streams):—

Seil Ed Debbah (dry).

„ Khanaizíreh.

„ Faifeh (two branches).

„ Ghor es Sáfi.

By the last we encamped in the midst of the dowár of the Ghawárineh Arabs. We reached it about half-past ten at night very tired, having walked over twelve hours that day. The scene, as we marched by moonlight through this tropical wood, was very striking, and as we were none of us allowed to speak above our breath lest some prowling enemies should be encamped or waiting near, there was a certain air of romance about the whole. In the neighbourhood of Seil Faifeh we espied a camel with a riding-saddle on, and an 'abba thrown across its back; the owner was evidently like ourselves travelling by night, but alone, and had wisely decamped on seeing such a very questionable-looking party as our own, and left his beast to its fate. Our men were in high glee, and promptly proceeded to confiscate the stray camel and lead it on with our own animals, Selámeh merely remarking that they had got a windfall. Not wishing to be a party to such a piece of bare-faced robbery, and perhaps to draw down upon ourselves the vengeance of the Arabs to whom the camel belonged, we insisted on their leaving it where it was, which, after some demur, they consented to do. The mountains immediately behind the Ghor es Sáfi are called Jebel el Butsh, those a little higher up by Seil Faifeh are named El Jifneh. Just before reaching camp we saw a wild boar.

On April 16th we stayed in camp to rest, and to get rid of the 'Ammarín Arabs, for as the Ghawárineh seemed more practicable we preferred dismissing the former and going on with them. In the course of the day a Sa'adí Arab came into the camp with a wound in his foot. He had been on a plundering expedition with four others in the mountain, but they had all been taken by the mountaineers and killed. This one took to his heels and escaped with the loss of his 'abba and arms and a slight wound.

The next day some of the Ghawárineh shot us a wild boar, which we bought and cooked. Dabbúr, the sheikh, and his brother Jaiyid, were very civil, and brought us milk and butter *ad libitum*. They had been constantly reproaching the 'Ammarín since their arrival for their treatment of us. At the back of the encampment was a pleasant stream, in which we bathed.

On April 18th we visited the Gasr el Basháriyeh, a ruined fort at the foot of the mountains behind the camp. The gateway, with a pointed arch, is still in a good state of preservation; it has been plastered inside, and on the plaster are still traces of an Arabic inscription in paint. On the doorway are several tribe marks (called by former travellers astronomical signs). There is an Arab cemetery near the fort dedicated to Sheikh 'Aisá; several of the graves are made on the top of the walls, and the corpses merely covered with stones and bushes. Most of the walls are made of mud, but two are of stone, and have a kind of stone-lined trough at the upper end. The Arabs say that there were formerly water-mills here, and that these were part of the arrangements for bringing the water power to bear.

On the hills above are traces of a town or village, and there is a small building, probably a chapel, nearer the fort. The ruins to the north-west of the fort are of a more recent date than the rest. We next went up the wády called Wády Siddíyeh, in which we found a broad rushing stream (Seil Garáhi) with rushes, tarfahs, and beautifully flowering oleanders growing on its banks; there were also some small fish in the river, and fresh-water crabs. All the 'Ammarín, except Suleimán, had gone off, as we refused to have anything more to do with them. They tried all they could to propitiate us, fearing that we might call them to account hereafter, and promised us safe conduct for the future if we would keep with them, but we could not trust them, and sent them about their business. Here Mr. Drake shot a kite (called in Arabic Hadái), which was promptly cooked and devoured by Sheikh Dabbúr. The head of the Seil Garáhi is about two days' journey up the valley, where there is a fort (Cala'at Garáhi), a station on the Hajj road, the only other one intervening between this and Maán being 'Aneizeh.

On April 19th we left the Ghor es Sáfi about 10 a.m., with a motley *cortége* consisting of five donkeys, a mule, and five horses, besides an Arab woman and child on foot. Passing through the *hish* (or park) and a large piece of cultivated ground, we came to the shore of the Dead Sea. As the mist still continued, the view was a most dreary and dismal one. The shore consists of soft sand covered with an incrustation of salt and pieces of dry drift wood; here and there the water had remained and formed stagnant pools filled with decayed vegetable matter, and in these the mud beneath the salt incrustation was black and smelt horribly. In about an hour and a half we reached the ruins of N'meirah, the ancient Nimrim, where there is another stream of water and a well (Sheikh Saláh) held in great estimation by the Ghawárineh Arabs. Keeping still along the desert shore we passed a ruined tower, the ruins of a place named Meraisid, and came in two hours and a half to the Ghor es Sa'ad, where we found an encampment of Mejelliát Arabs from Kerek. They came out to welcome us and suggested black-mail under the euphemistic title of *rafk* (companionship or escort), but our Ghawárineh attendants promptly repressed them, and our own remarks upon the sub-

ject were far from complimentary. A little distance on was a ruined reservoir, Birket Abu K'taineh, and just over the low hills to the east a small rock-hewn chamber, circular in shape, with two niches in the wall, and a recess leading to a window opposite the door. In the recess was a little store-hole, or closet. The walls were covered with modern Arabic graffiti, and many representations of human hands cut in the soft clay of which the chamber is composed. These are probably the work of Arab pilgrims who visit it on the way to Mecca along this road. The Ghawárineh look upon it as a holy place (Abu K'taineh being one of their saints), make pilgrimages to the spot and offer sacrifices there; they say that the Jinns (Genii) cut out this dwelling-place for the saint. A little farther on are some heaps of stones by the sea-shore, called Rujúm el Mowájehát; they are used by the Ghawárineh as altars on which to sacrifice to Nebi Saláh (whose tomb can be seen from this spot) in times when the presence of hostile tribes makes it difficult or impossible to approach the weli itself. After a walk of about eighteen miles we reached the Ghor el Mezári, and pitched our tent in the midst of an encampment of the Arabs of that place. No sooner were we encamped than the Ghawárineh swarmed round our tent, pressing and crowding upon one another with rabid curiosity, and so completely hemming us in that Ibrahim, our servant, in endeavouring to get near us fell head over heels in the midst of them all. They apologised for their curiosity by saying that they had never seen anybody like us before. Towards evening the mist (which we notice always comes up with a south wind) cleared away and revealed the Dead Sea and its neighbourhood, the colouring of which, when the atmosphere is clear, is simply magnificent.

Early in the morning we started off, accompanied by Felláh Sheikh of the Ghawárineh of the Mezári, and six or seven men, to visit the Lisán. It is a flat plateau of soft limestone, almost like clay encrusted with salt, and containing here and there bits of soft sulphur. It is lower towards the shore, giving the impression that it was once an island, when the sea-level was higher than it is at present. It is perfectly flat, with the exception of a few small plateaux, rising up like islands upon it here and there. The edges are cut up into deep wádies, which however run only a short distance and then stop abruptly, as the soil is too absorbent to admit of a long flow of water. Crossing the lower piece between the ghor and the general level of the Lisán, we mounted into the plateau, and proceeded for a short distance down a wády called Meráikh, where we found the ruins of a large tower, built of solid masonry. The hill-side on which it stood had also been strengthened by building a wall of small bricks or brick-shaped stones against it to counteract the crumbly nature of the soil. On the site were some broken columns, and many pieces of glass and pottery were lying on a neighbouring ash-heap, but we could find nothing to indicate its date. Near the same place also we noticed a small reservoir. Making a cirouit of the promontory, we came to a slight depression on

the eastern side, in which water collects during the rains, and which consequently shows some signs of fertility; in this depression, which is called 'Aríl, is a fine spreading tree. At the end of the bay we bathed in the Dead Sea; the water is so extremely salt and pungent as to be very painful to the eyes if it is allowed to enter them, but so buoyant that we could float with equal ease upon our backs or breasts, or sit in the water with our heads, hands, and feet out, or act indeed almost as we pleased in it without any fear of sinking. The most disagreeable part of the thing was the impossibility of keeping our feet sufficiently down to swim in the ordinary position. We immensely enjoyed the bathe, although when we were out of the water we became encrusted with a white deposit of salt, and felt our numerous flea-bites very acutely. Returning to camp we found Sheikh Ahmed ibn Tarif, chief of the Beni Hamídeh, waiting for us. He wished us to get off before the Mejelliát came down to worry us, and to camp at his place. To this we consented, and although we were rather tired already with our trip to the Lisán, proceeded to pack up; but it was not without a great deal of noise and bother that we got away. At last, leaving the Ghor, which towards this point is very swampy, we passed the ruined fort on a hill, called Tell 'Abd er Rahím, and crossing the Seil Haditheh, a broad stream of water that might almost be called a river, we began the ascent of the Nagb Jerrah into the hills of Moab. The road, though rather steep, is a broad and good one all the way, and has at various parts been built up with masonry and rocks. All along it are huge cairns of stones, of the origin of which the Arabs knew nothing. Some smaller cairns, about an hour higher up, marked the place where some Arabs of the 'Azázimeh on a predatory incursion had been shot by our friends the Beni Hamídeh. It was not until past dark that we reached the Arab encampment of Sheikh 'Aleyán, where we were to pass the night. The sheikh himself, a palsied old man, received us very civilly, and gave us milk and a dish of rice cooked with butter for our supper, offering us as well a handful of tobacco—the first time we had ever *received* tobacco from an Arab in our lives.

In the morning, as we were packing up, a gazelle suddenly appeared close by the camp, and was immediately followed by one of the dogs, as well as by half the able-bodied men of the tribe. One of them came near it, and knocked it over by throwing his dabbús, or club, and having slaughtered it, the rest brought it in triumph to the camp. It was a very fine animal, and we bought the horns for a few charges of powder. Continuing our ascent we came to the top of the Nagb Jerrah, where were some pools of water, constructed with rude masonry, and called Hafáir Jerrah. There was still a considerable ascent to make, but after toiling for some time over steep sloping hills, and passing a spring called 'Ain el Joheir, we came to the encampment of Sheikh Ahmed, which was situated on a flat knoll, just beneath the Rás en Weimeh. The scene on thus entering Moab was very pretty, reminding us somewhat of Palestine, though the hills are on a much larger scale, and the butmah-

trees take the place of the olives of Judea. As soon as we arrived we were entertained with coffee, and sat some time in the "shigg," talking with the Arabs, until the tent was pitched. No sooner had we got fairly settled down, than Ahmed brought us two capital dishes, one of rice and butter, and the other of millet and butter, for lunch, and shortly before sunset he again brought a smoking hot dish of boiled lamb, fat and fleshy, and resting in a mess of rice and butter; this, with some hot bread and a dish of boiled and buttered corn, made us a dinner by no means contemptible.

The object of our coming was immediately divined by the Arabs, for we found that the affair at Dhibán had afflicted them with a positive mania for "written stones." Our host offered to conduct us at once to Shihán that we might see, and, if it pleased us, buy a stone which he declared he had found and concealed there, and which the now celebrated Ibn Nuseir had been unable to obtain for the "consuls at Jerusalem." He had, however, a keen eye to profit in the transaction, and declared that we must pay a sum of money down before seeing the stone, because, as he frankly told us, it might be worth nothing, and then we might only give him a trifle for his trouble, which would not answer his purpose. He, moreover, added the following reassuring remark: "If you Franks had come down here twelve months ago, and offered me a pound or two, you might have taken all the stones you chose, the Dhibán one included; but now you have taught us the worth of written stones, and the Arabs are alive to their importance at last." Several times we were told, by men who had actually assisted in breaking the Dhibán stone, and who might therefore be supposed to know what it was like, of other monuments which they declared to be the very counterpart of it. We could not leave such statements unsifted, and the same routine had to be observed time after time—an extravagant *bakhshish*, a long walk or ride, occasionally entailing a night passed under the shelter of a rock, with no other food than a piece of dry bread and a skin of water—the result being a stone covered with old tribe marks, natural veins, or at the best a fragmentary Nabathæan inscription.

The morning after our arrival we set off, attended by six guards, to visit "Lot's wife," and although we knew that we should have to camp out on the mountains, took with us nothing but a little flour, and no extra wraps but a dressing-gown apiece. Proceeding down a narrow winding valley with a steep gradient, we came to a stream of water, a *birkeh*, and the ruins of a fort built in very solid masonry. Farther on was a large cave on the right, in which the Arabs took refuge when Ibrahim Pasha came to these parts with his soldiery. Farther on, about three and a-half miles from camp (turning off to the right), we came to an encampment of Arabs, where we lunched on hot bread broken up and soaked in butter, and after paying a trifle for our entertainment, started again on our journey.

Passing along the sides of the steep hills for about three miles, we

came to a plateau 2,100ft. above the Dead Sea. Here is a conical hill of bluish clay, called Telail Abu Fulús (the coin-containing mound), towards which we walked, the Arabs declaring that our road lay that way. On reaching it, however, it was apparent that they had missed the path, and we found ourselves obliged to descend an almost perpendicular cliff of broken sandstone. The view from this was exquisitely beautiful, and the colouring some of the softest and most delicate I have ever seen. A steep and difficult climb brought us to another plateau about 1000ft. above the Dead Sea, on the edge of which was the object of which we were in search—Bint* Sheikh Lot, or "Lot's wife," a tall isolated needle of rock. The story which the Arabs tell is merely a slightly distorted version of the Bible account, with the addition that there were seven cities, and that the Dead Sea, which did not exist before that time, miraculously swallowed them up. The Ghawárineh say that it was a punishment for rejecting the mission of Mohammed, and that Lot, the only believer in the place, was told to go *eastwards* with his wife and family, and forbidden to look behind him. His wife neglected the precaution, and had indeed ridiculed her husband's prophetic warnings before. In retribution for this she was turned into this pillar of rock, which at a distance does bear a curious resemblance to an Arab woman with her child upon her shoulders. The sandstone presents some very fine colouring, red, purple, and violet streaks of very brilliant hue relieving the monotony of the ochre tint of its ground-work. The lower plateaux would seem from the water-worn appearance of the stones to have been former sea-levels. Hastening back, we came about sunset to some water in holes in the rock left by the previous spring rain, and after quenching our thirst thereat, went on until nightfall, when we stayed to rest in a hole in the rock, and sending two of the men to knead some flour at the water above us, baked a piece of bread in a wood fire and lay down to sleep. Having very little covering, and nothing to rest upon but sharp stones, we did not sleep very comfortably; and, as soon as it was light we started off again, and having rested a little while at the stream of water, turned off towards the tents of some Arabs on the right-hand hills and begged a breakfast. Here we were told of a stone in the neighbourhood, the description of which greatly raised our expectations, for the Arabs declared it to be exactly like the Dhibán stone, but bigger. After toiling up a high hill we found the stone in question on the top of the pass—a large flat block of naturally broken stone, with rude figures of *beden*, &c., scratched upon it, exactly like those so common in Sinai. It was very disappointing, but there was nothing for it but to make the best of the matter and our way home. Resisting the hospitality of Fá'úr, one of our men, whose tents we passed on our way, we reached camp about three o'clock, very tired and weary, and were glad to turn in for the night. In the morning, after breakfast, we mounted horses

* *Bint* properly means "daughter," but in Moab it also signifies "wife."

and set off, accompanied by Sheikh Ahmed, on a visit to Shihán, the ancient Sihon. Passing through a number of fields enclosed by ancient walls, and called Hákúráť Huseiní, we came to a ruined village called Sarfat el Mál, where we had been told of the existence of a stone with writing on. This turned out to be nothing more than a broken boulder of black basalt with natural markings. The buildings were not unlike those at Dáťráiyeh, the arches being of the same pattern, but all composed of the black basalt above spoken of. We found a millstone of the same in one of the wells, in shape like those discovered at Pompeii. Riding along beside an old road which ran between two walls we passed sundry other ruins, Hammet 'Aneinah and Mejdelain, two forts on the right, Mer'á, a village on the left, and Haimer, a fort east of Shihán, and at last reached the ruins of Shihán itself. They are situated on a round hill which rises out of the flat fertile plateau beginning at Sarfat el Mál. There is little left of the ancient city of Sihon but a few rude forts and dwellings, and a well, or matamore. In the centre there evidently once stood a temple, probably Roman, and some pieces of broken columns lay scattered about. The stones of which we had heard so much from the Arabs turned out to be merely a rude capital with the ordinary Ionic ornament, and a flat broken slab of white stone with a few Arab tribe marks upon it. At Shihán were numerous Arab graves; one recent burial was excessively unpleasant to our olfactory nerves, as the corpse had been only partly covered by a few stones thrown over it. We noticed as a peculiarity of the burials here that two sticks with a rope between were often placed beside the grave, and on this braided locks of hair were hung as offerings. Again disappointed, we turned off to visit El Yehúdiyeh, of which the Arabs have a legend that it is a woman turned into stone for profanely denying the certainty of death. It is merely a black rock, or rather boulder, about 12ft. long, and shaped something like the Bint Lot before described. Passing the ruins of Fugú'a, we ascended a hill beside Wády M'naikherain, and lunched at the tents of some Arabs on a dish of boiled millet and butter, washed down with leben, or sour milk, and returned to camp after a ride of about eighteen miles. Moab is a flat plateau about 3,200ft. above sea-level, the edges being cut into deep valleys and worn into steep sloping hills at angles of forty-five and fifty degrees. Everywhere ruined villages meet the eye; the country is covered with ruined walls that once enclosed corn-fields and gardens, and everything tells of the immense wealth and fertility which it must have once possessed. Even now the land, though badly tended, is rich and prolific, and large plots of young corn and yokes of bullocks ploughing are met with everywhere.

At Shihán we received a visit from Khalíl el M'jellí, sheikh of the Kerek Arabs. While we were in the Ghor the Haweitát Arabs made a raid on him, and stole his horses and mules, to the number of sixteen; he was, consequently, rather hard up, and was now going the round of his friends to pick up what he could towards supplying his

loss. He contemplated bleeding us, but did not succeed. Sheikh M'sellim, one of the chiefs of the Beni Hamídeh, also invited us to a feed at his tents. The accounts of the unsafe state of the road by Shobeck and to the east of Petra, and the raid that had actually taken place during our journey through the 'Arabah, gave us cause for congratulation that we did not leave Wády Músa by the Darb el Hajj, as we had at first intended.

On April 27th we walked to a ruin called Nebi Dá'údi, or, by some Suleimán ebn Dá'úd. It is a square ruined building, with compartments round the interior, and a large tomb, 26ft. long, in an open courtyard in the centre. The tomb is composed of hewn stones, with an upright one at either end; at the eastern end were numerous offerings, such as beads, buckles, coins, and the like. One of the compartments on the south side had evidently been a mosque, as it contained a regular mihráb, and had a verse of the Corán painted on the plaster of the wall, ornamented with an elaborate arabesque fresco. Here again were numerous offerings, amongst them many camel sticks. It is probably the tomb of some pagan, perhaps Moabitish hero, adopted by the Moslems as a wali. When we came back we had a hearty meal off a kid, which Sheikh Ahmed had given us, and were very glad to get a taste of meat again, having been without for some days.

One morning we had an opportunity of listening to an Arab council of war. Two men came as ambassadors from 'Abd er Rahmán el 'Awar, one of the Felláh chiefs of El Jebál, to seek for peace with the Beni Hamídeh. This fellow is a great scoundrel, and some time before had invited the chief men of the village next his own to an entertainment, and when they were all asleep in his house at night had murdered them in their beds, and thrown the carcasses to the dogs. This year he repeated the performance, and has thus murdered forty men. Of course it was no affair of the Bedawín, but a few days previous to the arrival of the embassy he had attacked a tribe belonging to the Beni Hamídeh and stolen their cattle, taking with them some of the sheep and donkeys belonging to Sheikh Ahmed Ibn Tarif himself. The latter now demanded either that his beasts should be restored or an equivalent in money paid, and dismissed the messengers with a very summary remark to the effect that if they came near him until the terms were complied with he would murder them then and there. Certainly the Beni Hamídeh were much more quiet and sensible fellows than any others whom we had seen, and Ahmed's demeanour during this rather important discussion was calm, and free from all violent demonstration. When the men had gone he came to the tent and told us they were some of his own people, and were bargaining about a sheep. This was in order not to arouse our apprehensions, as the country is in a very unsafe state, but when he found we had overheard the whole affair, he made no further attempt at concealment.

On the morning of May 1st the wind was blowing a perfect hurricane, and we found all the Arabs moving their tents to the other side of the

hill, and had ourselves to follow their example. The change was for the better, as we had a clearer camping ground and a good view of the Dead Sea in front of our tent.

One night we were awakened by a great noise and shouting; it seemed that some of the S'khúr Arabs were returning from a raid against the 'Azázimeh and Gadeirát Arabs, and had brought with them fifty camels which they had stolen. Our host and his party, hearing that they were passing by his way, turned out in the hopes of catching them and levying a tribute of one or two camels, but failed to overtake them. In the morning a Christian trader from Kerek, a wretched-looking scoundrel, arrived in the camp; he was going a round of the tribes for the purpose of buying butter.

About nine o'clock on the morning of May 5th we got away from the Beni Hamídeh camp, and, crossing the plateau towards Shihán, stayed by appointment at the camp of Sheikh Musellim. Here we sat in the "shigg" sometime and drank *leben*, after which we went to our own tent, where Musellim brought us a dish of boiled lamb and millet, and later on another similar dish, followed by a delicious dish of sweet curds.

In the morning, as we were ready to start, about half-past five o'clock, Sheikh Zeben came up and declared that he knew of a stone at Mejdelein close by, and we accordingly rode off to see it. It turned out to be a stone lintel with a rough Greek pattern upon it in relief, covered with red paint, and on the under surface a still rougher vine pattern. Giving Musellim a small bakhshish, with which he was of course dissatisfied, we at last got off, and, crossing the summit of Jebel Shihán, strolled down the wády on the other side, which we found to be full of rude caves, now used by the Arabs for their winter quarters. This wády is called Wády el Weil. After another long walk across the plateau we came to the pass leading down into Wády Mojib. There was a small ruined fort at the top, and the pass itself was one of the steepest we had yet seen, being about 1,500ft. deep. At the bottom we found a pleasant stream of water, near which we rested during the heat of the day, and gathered some of the delicious fruit of the nebuk-trees which were growing there. We then had a bathe, and went up the valley a little way to look at a wonderful cave said to exist there. We found it to be merely a naturally formed niche in the rock, which is of limestone, very soft and easily detached, but which hardens on exposure to the air, so that the surface is always firm. It was covered with rude figures in red paint, representing camels, &c. (as in the Sinai inscriptions), and a half-obliterated Nabathæan inscription. It is said to be the work of a fairy, *Melicheh*, and to change colour at night, turning from red to green. As the heat was very oppressive, and we were both footsore, we rode up the pass to Kúrah, and, crossing this plateau, reached Dhibán soon after dark, and merely spreading our beds, and making a loaf of bread and some tea, had a frugal meal and turned in for the night.

On May 7th we were up at daybreak, and after breakfasting off the

remains of the last night's bread we looked over the ruins of Dhibán and inspected the remains of the celebrated "Moabitish stone." The village is built upon two hills, the architecture being just like that at Datraiyeh. There is a wall running round the town, and the place where the stone was originally found is just within the gate where the high road comes in. The Arabs had buried it below the soil a few yards from the spot, and when the quarrel ensued between the various tribes respecting it, had kindled a fire and smashed it to atoms with stones. We looked the pieces carefully over, but the written parts were all gone, though there was still some of the smoothed surface remaining, of which we each took a piece for a memorial. One reason which appears to have induced the Arabs to break the stone as soon as any dispute arose concerning it was, that when the "Hajar el 'Abd," a portion of a bas-relief, was taken by M. de Saulcy from Kerek, both Khalíl el Mujellí and Hassan Abu B'reizeh, quarrelled about the price paid, and a war was brought about between the two tribes and many men were slaughtered. In order to avoid the recurrence of any such *contretemps*, the Arabs now, whenever they find a stone likely to be of any value, at once conceal it. Mounting our horses we rode across to Umm Rasás, passing by the way a ruin called Rujeim Selím. Umm Rasás is a large ruined town built on similar arches to those described in other ruins, and containing two churches. It is surrounded by a strong buttressed wall, and is about 400 yards square. Outside the town to the north is a suburb, and farther on in the valley a number of rock-cut reservoirs, a square building, and a tower about 50ft. high, rather neatly ornamented at the top. The inside is filled with large stones which completely block up the staircase. There is a legend that it was built by a Christian chief for his son, in order to protect the latter from the fulfilment of a prophecy which foretold that on his marriage night a wild beast would devour him. He was at last married to a lovely girl, who was brought to him in the tower to avoid the dreaded consequence. The bride, however, turned out to be a Ghúleh (Ghoul), and, assuming the form of a wild beast, devoured him then and there. We found crosses sculptured over the windows of the churches and the tower. After a long and thirsty ride (for the day was an inordinately hot one) we reached the edge of the plateau and began to descend into some of the smaller wádies; in one of these, near a ruin called Khirbet el Ghazáleh, we found a camp of the S'khúr Arabs (singular S'kheri), and had a drink of leben and a bowl of buttered bread with them in the "shigg." From this point we struck Wády el Butmah (so called from the number of terebinth-trees with which it abounds), and keeping along the top of the wády bank descended after about two hours by a steep and difficult pass into Wády Wáleh. Here was a beautiful seil, quite a little river, dashing over the rocky bed and filled with fish (*shemel*, a species of chad). Our men had been told to wait for us at the camp of the Hamaideh in this valley, and as that was some distance down we did not reach it until past nightfall. On our way we passed a curious isolated rock and a ruined mill. Not far

from camp there was a ruined village and bridge. We discovered that the only inscribed stone at Umm Rasás, where we had been led to expect great things, was a rude Nabathæan sepulchral monument, of which a squeeze had been brought to Jerusalem. A copy has already appeared in the *Quarterly Statement*, and I purpose myself giving a corrected copy of the same with a translation and comment.

On May 8th we went down to the seil to bathe, and spent some hours in catching fish, obtaining a good dish for lunch by chasing them about in the shallows and catching them with our hands, or "tickling" them as they lay under the banks. The stream is a very pretty one, flowing over a rugged bed of hard white limestone, and bordered by thickets of flowering oleanders. Here and there it narrows into a deep rushing torrent and again falls in a little dashing waterfall over the stones. In one place we found a place deep and long enough for us to have a very comfortable swim, which we indulged in twice during the day. While we were in the water we were visited by Sheikh Hassan Abu B'raizeh, from Kerek, who was encamped close by and had come to invite us to his tents, making great promises of friendship, and offering us as presents his gun, horse, and pistol. We consented to accept a small kid, as he, too, had some stones to tell us of, but they turned out to be the same which we had ourselves seen at Shihán. The day was very hot, the thermometer standing at 107 in the shade, and the candle which was placed beside us in the tent actually melted away.

The next day we left Wády Wáleh at sunrise, and mounted once more on the plateau, where Fa'úr, our chief guide, took leave of us, as usual, disappointed with the amount of his bakhshish. We passed on the way Khirbet Libb, ruins to the east; Hareidín, a small ruined tower to the east; Wády Habís, and Zerka Ma'ín, to west. There are two Zerkas in Moab; this one is called Zerka Ma'ín, from the rather extensive ruins of the ancient town of Maon, now called Ma'ín, which are situated on its banks. Another large ruin, called Jedúl, lies a mile or so to east, with a road branching off towards it. Presently we came to Wády 'Ayún ed Dhcib, a steep glen, in the centre of which is a ruined village, where Matlag, one of our men, declared that he had found and buried a stone like the Dhibán one. He described it as rather redder in colour, but in shape like the breast of a man, with incised writing on the upper side. It was set (he continued) in a kind of pedestal formed of masonry, covered with stucco. We were just starting for it when we found that some Arabs were encamped near the place, and our men began making excuses and refused to go on, so that we were obliged to return much disappointed, and determined to send Matlag for a squeeze. It turned out to be nothing but a Nabathæan inscription. We now came to the edge of the Moabite plateau, and began to descend on to the slopes above the Ghor, which are called the Belga.* Here we saw several stone circles

* The word is properly written Belka, but the Bedawin always change the hard *k* into *g*, and I have throughout this report followed the local pronunciation.

of the type familiar to us in the Tih, and one heap called El Maslúbiyeh. We camped for lunch in Wády el Kenaish (at the top of the Belga), where there was a spring and stream of water. At three o'clock we set off again and descended into the Ghor es Seisibán, which we reached about nightfall, and spreading our beds in the open air had a piece of dry bread and a drink of water for dinner and turned in.

Our sojourn in Moab was expensive and unsatisfactory. The Arabs were affected with a mania for written stones, and we were in this way induced to take long and tedious journeys about the country to see stones which they declared to be the very counterpart of the Dhibán inscription, and, thanks to the utter mismanagement in the case of the latter monument, the owners having learned the worth of such antiquities, had them concealed, and demanded a large bakhshish before they would reveal the hiding-place.

We visited camp after camp, staying with the various sheikhs, passing from tribe to tribe, and living *à la Arabe* in order to gain their confidence, and in this way we succeeded in inspecting every known "written stone" in the country, besides examining and searching ruins for ourselves; but the conclusion has at last forced itself upon us that, *above ground* at least, there does not exist another Moabitish stone.

If a few intelligent and competent men, such as those employed in the Jerusalem excavations, could be taken out to Moab, and certain of the ruins excavated, I think it not improbable that further interesting discoveries might be made, as the Bedawin have at various times undoubtedly found relics of antiquity—gold coins, and even a small idol—when ploughing in the neighbourhood of the ancient cities. Such researches might be made without difficulty if the Arabs were well managed and the expedition possessed large resources; but it must be remembered that the country is only nominally subject to the Turkish Government, and is filled with lawless tribes, jealous of each other and of the intrusion of strangers, and all greedily claiming a property in every stone, written or unwritten, which they think might interest a Frank.

At least a thousand pounds would be required, and with this sum another Moabitish monument might be found, but until such sum is put into an explorer's hand there is little chance of a second being brought to light.

That many treasures do lie buried among the ruins of Moab there can be but little doubt, and the Arabs indeed narrated to us several instances of gold coins and figures having been found by them while ploughing, and sold to jewellers at Nablous, by whom they were probably melted up.

Near Kerek are some ancient remains situated on two hillocks similar to those at Dhibán, to which the following legend attaches:

"Between Kefráz and Kefrúz (the two hillocks in question), are buried 100,000 jars, containing the wealth of Hakmon the Jew."

I think it probable, therefore, that if an expedition to Moab for the purposes of legitimate excavation were organised, some other monuments might be discovered, but I am convinced that a mere visit even of scien-

tific men to the country will be attended with nothing but disappointment and annoyance.

Scarcely was it light the next morning when we were again on the march, and starting without any breakfast, made for the Jordan, passing through a Hish called Tell Rám, and by Kala't el Húl, some ruins to the north. The Ghor to the north is called Nimrín. About ten o'clock we reached the Jordan, which is hidden in the midst of a forest of large tarfah and other trees, some of the former being nearly 30ft. in height. The river is here very rapid and rather muddy, flowing through high banks of marl. Only a little piece of it can be seen at a time, as it soon loses itself in a thick jungle of canes and rushes. We crossed by a ferry boat, which slides along a guide-rope, and while the beasts were being taken across we had a bathe in the holy river, and very refreshing it was. In trying to take the camels across in the boat, one (luckily not one of ours) fell overboard, and was only got out with great difficulty, as the current is very strong, and carries anything down with astonishing rapidity. After a cup of coffee in the 'Arish, or straw hut, the abode of the ferrymen, we remounted our horses, rode on to Jericho, and our desert wanderings were at an end.

In a future number of the *Quarterly Statement* I hope to give an account of my subsequent work in Jerusalem, Palestine, and Syria, together with copies and translations of the numerous inscriptions which I have found in the Haram es Sherif and elsewhere. To this I purpose adding a complete Mohammedan account of the Holy City, drawn from Arabic manuscripts now in my hands.

E. H. PALMER.

[In order that the extent and value of Mr. Palmer's researches may be better understood, we reprint from the *Quarterly Statement* No. IV. the following paper, which embodies all the information that was attainable before he visited the country.]

THE DESERT OF THE TÍH.

A line drawn from the ancient port of Gaza, on the Mediterranean, through the wells called Bir-es-seba, the site of Beersheba, to the entrance of Wády el Jeib, at the southern extremity of the Dead Sea, cuts off the northern part of the Holy Land, where towns and villages are found, from the southern part, which is almost wholly devoid of such habitations.

The latter section is naturally divisible into three parts, viz., 1, Sinai; 2, the Desert of Et Tíh, the scene of the Wanderings of the Children of Israel; 3, the Negeb, or "south country" of the Bible, where Abraham, Isaac, and Jacob dwelt.

The attention which it is well known has recently been paid with so much success to the exploration and partial-survey of Sinai, is now being fol-

lowed up by an examination, by Mr. Palmer and Mr. Drake, of the Desert of Et Tĭh and the Negeb, with a view to the further elucidation of the scenes in which the patriarchs Abraham, Isaac, and Jacob dwelt, and of the desert where the children of Isrā'el spent forty years in consequence of their revolt at Kadesh. The tract in question is in some parts entirely unknown, and its exploration has now become more than ever a desideratum in the various branches of science.

The Desert of Et Tĭh is a limestone plateau of irregular surface, having the Peninsula of Sinai on the south, with the Mediterranean Sea and the Promised Land on the north. Just as Sinai projects wedge-shaped into the Red Sea between the gulfs of Suez and Akaba, so does the Tĭh advance with steep escarpments into the peninsula. On one side the edge of the plateau runs nearly parallel with the Gulf of Suez, and skirting the isthmus, not far eastward of the new ship canal, is gradually lost in the desert plain which borders the Mediterranean Sea.

On the other side in like manner the edge of the plateau faces the Gulf of 'Akabah, and continues in the same direction to skirt the Wādy el 'Arabah, which separates the gulf from the Dead Sea and the Jordan valley. On this side the desert plateau is terminated on the north by the hilly country which, extending through the whole length of the Promised Land, commences about 50 miles south of the Mediterranean Sea. It forms a well-defined limit of the desert, and is described by Dr. Robinson as rising like a wall from the desert plain, with the remarkable cone of Jebel 'Arāif on the west, and the cliff of El Mukrah on the east.

This hilly region, as far as Beersheba, includes the Negeb, or "South land" of the Bible, with the upland pastures of Gerar, where Abraham, Isaac, and Jacob fed their flocks, and held personal intercourse with the Almighty. It was afterwards inhabited by the Amalekites, in later times by the Idumeans, and now by the Azázimeh, the Saidiyeh, and the Dhullām Arabs. The Azázimeh country is the most southerly, and quite unknown. Near the cliff Mukrah, an ancient road is supposed to have passed between Gaza and the Gulf of 'Akabah, with a branch to Hebron. Here, too, at its base, on the verge of Paran or the Tĭh, and of Zin or the 'Arabah, some critics place Kadesh, one of the most hotly contested sites in Biblical investigation, and the settlement of which is much to be desired. The other positions of most importance in the controversy, are Dr. Robinson's Ain el Weibeh, in the 'Arabah; and Mr. Rowland's Ain el Kudeirah, or Kudes, among the valleys on the west.

Just as Sinai projects into the Red Sea, and as the Tĭh projects into Sinai, so does the Negeb advance into the Tĭh. For on the west the desert skirts the hill country northwards from Jebel 'Arāif up to Beersheba and Gaza, where the Wādy Suny serves for a boundary, dividing the barren waste from the Shefelah, or fertile plain of Philistia. On the east the plateau of the Tĭh runs up beyond the cliff of El Mukrah, towards the Dead Sea, in the form of a narrow terrace, between the eastern base of the hill country and the great Wādy el 'Arabah.

In proceeding northwards from the Gulf of 'Akabah, the traveller ascends

a succession of terraces, the first of which is the Tih itself, and the next is the hill country of the Azázimeh. This is succeeded by a third, which rises precipitously from the second terrace up a vast inclined plane of a thousand feet in height, and very steep. It is traversed by the Nukb, or pass of Es Sufâ, and also nearer the Dead Sea by the pass of Ez Zuweirah, both well described by Dr. Robinson. On this third terrace are the ruins of Thamara (Kurnub), Aroer (Arara), and Arad. It is inhabited by Dhullâm and Saidiyeh Arabs. Its western side is formed by Jebel Rakmah, behind which Dr. Stewart saw from Beersheba the top of another range, called Ras Tareibeh, but neither of these ranges have been explored. A valley of considerable extent, called Wâdy Marreh, is said to cross the high land at the foot of the third terrace, connecting Wâdy el Ain on the west with Wâdy Fikreh on the east. It is at the western end of these valleys that Mr. Rowland places Kadesh. In the same neighbourhood are said to be the ruins of Eboda; and Jebel Madherah, which rises in a conical form out of Wâdy Marreh, is regarded by some as Mount Hor.

The distance from Hebron or Gaza to the cliff of El Mukrah, the southern extremity of the hill country, is about 70 geographical miles in direct lines. The width of the hill country is about 30 geographical miles. Up to the present time it has only been crossed by travellers hurrying on to Hebron, Petra, or Sinai. It is with the view of attracting more than a passing glance to this home of the Patriarchs, and threshold of the Promised Land, as well as to define its relations to the Desert of Et Tih, that these brief remarks have been made. Until it is exhaustively studied, the situation of Kadesh must remain in doubt, and that is the key to the movements of the Israelites after they departed from Sinai. It was their third resting-place beyond Sinai. They came to Kadesh, unto the mountain of the Amorites, in the wilderness of Paran, and near to the wilderness of Zin, eleven days' journey from Horeb. There the people remained while the spies "ascended by the south, and came unto Hebron," searching the land from the wilderness of Zin unto Rehob. There Miriam died. There Moses smote the rock and the water came out abundantly, but, sinning in the act, he was denied admission into the Promised Land. From thence, after sojourning forty years in the wilderness, the Israelites departed on their way to Canaan, and came to Mount Hor, where Aaron died.

Turning now to the Tih itself, the first point that invites examination on approaching it from Sinai is the nature of its southern limit, and the passes which cross it. Beyond the names of Jebel er Rahah, Jebel et Tih, Jebel Ojmeh, and Jebel Dhelel, as divisions of the range, together with certain prominent points seen at a distance, as Tas et Sudr and Jebel Wardan, as well as the passes of Er Rakineh, Wursah, and Mureikhy, there is but little to be found that deserves the name of accurate description or delineation. The south-eastern edge is perhaps worse defined than the south-western; indeed, there is scarcely anything definite known about the former.

The surface of the plateau itself, although traversed by the route of the Egyptian caravan to Mecca, and often crossed by travellers, has never been systematically explored. It is for the most part drained by the Wády el Arish into the Mediterranean, and by the Wády el Jeib into the Dead Sea. But although many branches of those great watercourses are delineated and named on such a map as Robinson's, yet nobody has yet attempted to trace any one of them throughout, and the entire outline will certainly be found very inaccurate. Still more imperfect is the orography of the plateau. It is known to be diversified by various elevated groups and ranges, but only passing glances have been bestowed upon them. Russegger, in 1838, throw light upon the subject by his observations for general elevation and geology, but no one has yet attempted to deal with it in detail.

Perhaps the most interesting inquiry about this plateau, in a Biblical point of view, is as to its capacity for sustaining a considerable population under such conditions as it now presents, and under such other conditions as may appear to have existed in former times. Robinson's rapid journey across the eastern corner of the plateau enabled him to ascertain the names of the tribes now inhabiting the entire plateau, viz., the Haiwât, the Tiyahah, and the Terâbin. The Terâbin appear to be of the chief importance, and to be very rich in flocks and herds. They inhabit the western side of the plateau from Jebel er Rahah to Gaza, and their head-quarters are said to be near Tâset Sudr. The Tiyahah occupy the centre in two divisions, and are in alliance with the Terâbin. The Haiwât inhabit the eastern part. Besides this meagre information, very little is known of these tribes.

The examination of the Tíh, or Wilderness of the Wanderings, including, it is to be hoped, the highlands of the Azázimeh, Saidiyeh, and Dhullâm, by Mr. E. H. Palmer and Mr. C. F. Tyrwhitt Drake, cannot fail to throw much new light on this interesting region. The familiarity of the former with the Arabic tongue, and the experience of the latter as a naturalist, are excellent qualifications for the work. Mr. Palmer will, at all events, give us a full account of the people, their history, numbers, organisation, manners, customs, and traditions. Through these inquiries, some light may perhaps be thrown upon the Israelite stations in Numbers xxxiii. It would have been satisfactory to have found an experienced surveyor* among the party, but this deficiency may be counterbalanced by a systematic examination of the ground, coupled with such an itinerary as Dr. Robinson supplies in his "Biblical Researches."

T. S.

* A reference to the map will show that Messrs. Palmer and Drake were fully equal to the task of making a route survey of more than usual exactness.

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THE
PALESTINE EXPLORATION FUND.

PREFACE.

At a meeting of the Executive Committee, on March 14th, 1871, the following resolutions were passed, and ordered to be published in the next *Quarterly Statement* :—

“(1.) That the secretary be instructed to write to the chairman of the American Committee, and point out the importance of speedily arriving at some plan of united action, acquainting him at the same time that the English Committee have under consideration a plan for completing the survey of Palestine west of the Jordan, connecting the new work with those portions which have already been surveyed by their officers, Captain Wilson, Captain Warren, and Lieutenant Anderson.

“(2.) That Captain Wilson be directed to draw up a report showing the probable cost and best mode of conducting such a survey, with a view to recommending a plan of action to the General Committee, if possible, in combination with the labours of the American Association.”

These resolutions are here published, as a preparatory step to the new expedition contemplated by the Committee. It is proposed to get this ready to leave England early in the autumn, and commence work at once. It will be under the command of officers of the Royal Engineers, assisted by sappers. The American Association has accepted the share of work proposed, and will, as soon as possible, fit out an expedition to carry on simultaneously a similar work east of Jordan. The results will be published, it is hoped, simultaneously. The survey will include examination, measurement, and sketches of ruins and inscriptions.

Excavations will be undertaken wherever they may appear necessary. It is hoped that large additions will be made to the Society's photographs. Periodical publications will be issued, giving the reports of the work in progress and the discoveries made, with, if possible, illustrations; as has been done for the last two years in the *Quarterly Statements*.

Estimates of the cost of this undertaking will be prepared for publication in the next *Quarterly*. The summer will be occupied in organising the expedition, and in collecting the funds necessary to begin it. Meantime, the Committee will be glad to receive promises from those who intend to support the work, and for that purpose wish to add their names to the list of annual subscribers. A public appeal will be made, and the readers of this preface, who are the present supporters of the Fund, will be able, by their own personal influence, if they will kindly exert it, very largely to increase the list.

The present number of the *Quarterly* contains Captain Warren's paper on Philistia, which has been kept back for some months for want of space. Mr. Palmer's concluding paper will be issued in the next number. The map of Moab supplements the map published in January, and embodies some of Captain Warren's work.

An expedition of great interest is contemplated by Reshid Pasha, Governor of Damascus, for the early summer. It will cross the desert, hitherto unvisited by Europeans, between Damascus and Petra, to the east of Moab. Mr. Tyrwhitt Drake will, if possible, accompany it on behalf of the Fund. Mr. Drake is now in Syria, engaged in getting copies and photographs of the Hamâh inscriptions, mentioned by Mr. Palmer in his "Preliminary Report."

THE PLAIN OF PHILISTIA.

BY CAPTAIN WARREN, R.E.

It is no idle dream to suppose that Palestine might, in a few years, become a land flowing with milk and honey; even with the present inhabitants, under an upright Government, the land would in a short time change its appearance, and, as it is, the country has changed in parts to a small extent, due to the alteration in the Government, brought about by the influence of public opinion of the West

asserting itself even in Syria. Look how those villages have begun to thrive which have been mortgaged to the Greek converts; and watch the cloud resting over the Christian village of Beitt Jala in the autumn sun, with its groves of olives, while all around is the brazen sky.

At present, however, Palestine—Philistia in particular—has not a tithe of the population that it would support; its fruit trees are left to take care of themselves, its waters allowed to run underground instead of on the surface.

Philistia consists of an undulating plain from 50 to 300ft. above the level of the sea, reaching thirty-two miles from Ekron to Gaza, with a breadth of from nine to sixteen miles. To the east of this the hills commence, not the hill country, but a series of low spurs and undulating ground, culminating in hogs' backs running nearly north and south, and rising in places to 1,200ft. above the ocean; to the east of these there is a steep descent of 500ft. or so to valleys which break through the barriers much in the same manner as we find the rivers forming passes through the chalk hills between Aldershot and Chatham. To the east of these again the hill country commences, and in two or three miles we rise to altitudes of 1,700 to 2,000ft.—the back bone of the country being at an elevation of 2,400 to 3,000ft.

In the hill country the spurs, not more than one mile or so apart, are often separated by narrow ravines 1,500 to 2,000ft. deep, at the bottom of which in the rainy season rapid torrents roll. Follow them into the plain and see what becomes of them; but first look at the existing maps. In one they appear to traverse the plains in a different direction to what they do in the next. The fact is, the bulk of the water reaches the ocean underground; on coming into the plain it forms marshes and pools, and quietly sinks away, while the bed of the stream itself in the plain is merely a narrow ditch some 6ft. wide and 4ft. deep. You may leave the water at the commencement of the wady mouth, ride over the plain without seeing anything of it, and meet it again welling out of the ground close to the sea shore, forming wide lagoons there. Now if proper precautions were taken, were the people industrious, and the country cultivated and clothed again with trees, the waters flowing in the ravines might be conducted over the plains in the early summer months and induce the rich soil to yield a second crop.

The encroachment of sand is one of the most serious evils now to be dreaded on the coast of Palestine. Already Gaza and Ashdod are threatened, and nothing is done to arrest the enemy, though there is little doubt but that the danger might be averted by obliging the landed proprietors to take common action against their silent foe.

On the coast near the mouth of Wady Semsim, which at this point flows north-west, the sand encroachment, proceeding N.E. by E., is evidently arrested by the waters of this stream, for on its left side are high sand banks dropping abruptly into the water, while to its right is low cultivated land.

The method of progression of the enemy here is plainly visible, for the

whole country consists of sand-banks sloping down at 10° towards the prevailing wind, and at 30° to 35° on the lee side. Thus the sand is gently rolled up the slope of 10° by the wind, and then falls down the other side by its own weight, so that it actually does quietly advance towards the object it intends to overwhelm in banks 30 to 50ft. in height.

It is curious in traversing these sand hills to come upon the site of some orchard which has been covered perhaps for hundreds of years. You suddenly come upon a sort of crater in the sand, 40ft. deep, at the bottom of which flourishes an apple tree; then you come upon a fig tree growing in the same manner, and lastly upon a little patch of ground, quite below the level of the sand, with a house attached; but even this patch of ground has several feet of sand over it. The husbandman's chief duty appears to consist in dragging up the sand in baskets from the bottom of the craters to the surface. The trees growing in these little hollows are very fruitful, and no wonder, for they have no wind, plenty of sun, and good moist earth to grow in; the superincumbent sand, being a non-conductor, prevents evaporation from the soil below, and keeps it moist through the summer.

During the time I was in Philistia, I examined and surveyed 800 square miles, and my time was so fully taken up with the work by day and night, that there was little time for any other examination; the latitude and longitude of more than 200 points on this plain are now fixed and published for the first time.

We were out from sunrise to sunset every day, but we did not suffer from the heat, though it was often up to 100° in the shade during the afternoon; in the night time it was comparatively cool, going down to near 70° , except during the siroccos.

May 24, 1867.—We left Jerusalem on a month's tour in the plains of Philistia, intending to try and photograph the monuments in the mosque at Hebron, and we were provided with letters from the Pacha of Jerusalem for that purpose. We travelled with much pomp and ceremony to Hebron, being accompanied by a lieutenant and four zaptis, who were to secure us admission to the mosque. The result of this expedition is described p. 39, *Recovery of Jerusalem*. I had had a sharp attack of fever on 22nd May, and only got out of bed to get on horseback. Corporal Phillips also caught the fever on our arrival at Hebron, but our ride down to Gaza, where we arrived May 29, brought us round again. Riding all day in a hot summer's sun is a queer remedy for fever, but I have tried it more than once with success.

On our way down we met women in the villages acting the part of mourners. The conscription was going on, their husbands were being taken away. Soldiers, they say, never return to their native villages, so they are mourned as dead men, and the widows marry again shortly.

May 30.—I had been requested to proceed a few miles S.E. of Gaza in search of the Tels Jema and Gerar, supposed to be the ruins of the city Gerar (Gen. xxvi.), and spoken of by several authors as having been

discovered by the Rev. J. Rowlands. In Van de Velde's Memoir (1858), p. 115, we have the following:—"Um el Jerar, the site of Gerar, at the foot of Tel Jema in Wády el-Adar, recognised by a few scattered stones in the vicinity of some fine springs, was therefore laid down in our maps according to the information of the natives."

On making inquiries I easily learnt the position of Tel Jema, and the only difficulty in the way was the permanently unsettled state of the country about this borderland, which being almost common ground appears to be constantly liable to raids from tribes from the south. Just now, the wheat having been recently gathered, there were many wandering bands of strange Bedouin about, who appeared to sniff our two zaptis from afar and long to punish them.

On making arrangements for passing a night at Tel Jema, our zaptis broke out in mutiny; so paying off the most blustering of the two, we set off with the remaining man, a black, ordering the muleteers to encamp beside the "fine springs" at Gerar or Tel Jema.

We soon left Gaza behind us and entered upon a rolling plain covered here and there with the stubble of the wheat. The natives of these parts are roving farmers—a turbulent lot of a nondescript race, who are constantly in trouble either with the local government or with their own allies the Bedouins; every now and then compelled to build themselves villages, they are again rendered homeless by raids from the south, and thus being constantly exposed to dangers from all sides, they are somewhat reckless in their behaviour, and it is not uncommon to hear that the soldiers of Gaza have been ordered out against them. Still they appear to thrive and to be well-to-do, no doubt partly on account of the richness of the soil, but partly by doing a little foraging on their own account and putting it down to the Bedouin, or else by acting as "jackals" in the raids which are sometimes made on the villages of the fat Philistian plains.

Their land may—must—be very productive, but as we wander on up and down the wády banks and over the swelling hills, it appears to be a series of semi or wholly barren wastes, interspersed with sand-hills on which linger a few solitary fir trees, though in the far west, on the sea coast, may be seen clusters of date palms around the villages, with the line of telegraph wires from Gaza to Alexandria, rudely preventing our losing ourselves in thoughts of the past.

I had always pictured to myself a peculiar region for the scene of Isaac's life, perhaps from its name of Goshen corresponding with the name of the fertile Egyptian tract (Gen. xlvii. 11), "the best of the land," something to compensate for the difficulty of his position. But there is nothing at the present day to bear out the idea, and it strengthens our opinion of his obedience to the divine command when we find how he gave up the pleasures of freedom, of a wandering life, or of settling in a country like the rich plains to the north of Gaza, in order to dwell in this tame and monotonous solitude. Perhaps to his gentle and peaceful nature there may have been something congenial in

the character of this country, but to a European it simply presents the disadvantages of a desert and settled life without the joys of either.

We had not advanced far into the plain before we came across Wády Sheriah, and I became aware that this portion of Van de Velde's map, put in on Bedouin authority, was hopelessly in error; but I found little chance of correcting it, for there are few prominent points, and one sand-hill is the veritable twin brother of the next, and so on; after travelling south from Gaza about eight miles, we came full in front of Tel Jema on the south side of Wády Gusseh, having to its west a little patch of cultivated ground on which melons were growing. But where are our tents, and where are the fine springs of Gerar? *Mafish, Mafish*; nothing but Tel Jema and its melon beds. The Tel itself is a mound similar to those of Jericho, the Jordan, and Arak Menshiyeh, artificial and covered with pottery and broken glass; and no doubt marks the site of some ancient stronghold or city. I now inquired from the natives for other ruins, but they denied there being any nearer than Sbeta, or any water either, except Tel Sheriah, where they say there are streams of water. Is not this latter likely to be the looked-for Gerar seen by Mr. Rowlands? At Tel Jema itself they said they obtained their water from Tel Ajur on the sea-coast, the mouth of the Wády Guzzeh, and there we were directed to proceed as being the only place where our tents could be pitched. There are here a lagoon and some springs of medicinal water, very nasty to the taste, but just the very stuff to carry off the ill effects of our fever, and we returned to Gaza next day nearly well. On our road through the sand-hills we came across a great lizard, looking like a small crocodile; we gave chase and ran it to bay under a little sand cleft. On going up to it it puffed itself out, and opened its mouth so wide that we stood around not venturing to touch the beast, and eventually stunned it by swinging a leaden plumb-bob on to his head; we then tied him hand and foot and fastened him on the rug behind the saddle of the dragoon, who was rather nervous about his companion coming suddenly to life again. We then rode on to Gaza and met a good many Bedouin on the road, who shouted out after us "Warren! Warren!" It did not strike me at first as odd, but when they all began shouting out my name we were a good deal puzzled. On getting into camp we tied the beast, now quite lively again, to a stake in the ground, and let him get in the shade under the lee of my tent. The townspeople soon began to flock around us, and I heard repeated exclamations of "Warren!" and on going out to see the reason, found them pointing to the lizard, and discovered that I had a namesake inhabitant of the desert. This animal is well-known on the banks of the Nile, but I am not aware that it has been seen in Syria before by Europeans, and as I was anxious to get him forwarded to England, I sent him in a cage to Dr. Chaplin at Jerusalem, who identified him as the Nile lizard; he was taken to be examined by some of the English residents, but after getting into a harmonium and refusing to be dislodged for some time,

it was considered desirable to return him to the care of Sergeant Birtles, who was encamped outside the town. He throve very well until a certain Sunday morning, when he was tied hand and foot and put into a pit so as to be very safe, and a Nubian guard was told to watch that he did not escape. On return from church he was not to be found, and nothing was heard of him for three years. When we were leaving Jerusalem in 1870, we learnt that this animal, when cooked, is a very favourite dish of the Nubians, and that some Nubian friends of our black guard having come to visit him, they had together regaled themselves on my unfortunate namesake.

At Gaza we were encamped under an aged tamarisk tree (see No. 255 photo.). I paid a visit to the governor, who gave me leave to visit the mosques, and served me with the best cup of coffee I have tasted in Syria. The old church, described by Porter, is well worth a visit. On one of the white marble columns in the nave is a Jewish seven-branched candlestick sculptured; it was out of our reach, but there is no doubt about its existence; it is on a square of about six inches. Some of the columns appear to be of granite. We could find no vestige of ancient Gaza outside the city. 3rd June, left for Askelon, thirteen miles in a straight line. At the present port to N.W. were bones and jars collected ready for exportation, and a few coasting-boats in the offing. Passing over the drift sand we came here and there to craters, thirty to forty feet deep, at the bottom of which would be growing a fig or an apple tree laden with fruit.

ASKELON.

From our tents, pitched upon the brow of the cliffs overlooking the ocean, we commanded a splendid view of the ruined city; its walls thrown up in fantastic confusion half covered by the luxuriant growth of fruit trees or by heaps of drifted sand—strange contrast of fertility and desolation: useless it would be to attempt a more complete description than that given in Murray's guide, or the "Land and the Book." I shall content myself with touching on two or three points.

The city is four-and-twenty miles, as the crow flies, from the present ruin of Timnath, whence Samson came to plunder the thirty change of garments for the payment of those who had expounded his riddle; though this is the only incident with regard to the whole city, recorded in the Bible, yet it is impossible to visit these ruins at the present day without realising, perhaps more than in any other ancient city west of Jordan, the utter overthrow of power that has taken place, the desolation which reigns supreme; the walls of indurated sandstone, though now of small-sized stones, were once formed of massive blocks, as is seen by the remains here and there that have not been cut down for other purposes or carried away to Acca or Saidon; great columns of granite seventeen to eighteen feet in length, and two to two and a half feet in diameter, project from the faces of the existing walls, used as thorough bonds, though hardly necessary, it seems, for the intensely

hard mortar has united the stones into one solid mass, which has only again been broken by some great force, probably gunpowder. Examine these walls (photos. Nos. 257—259), great discs of masonry overlapping each other in confusion, and it is apparent that they have been overturned at no very remote period. Some of these walls may have been built by the ladies of England as an offering to their country and lion-hearted king ("Chronicles of the Crusades") during the Crusades.

The view (No. 256) shows us the sycamore fig tree, now loaded with its burden of fruit, the hollow fig, which, though refreshing when picked from the tree, is considered too inferior a fruit to be eaten by any but the poorest of the people. See how the trunk of the tree, acted upon in its early growth by the prevailing wind, the sea breeze has bent over the narrow pathway for nearly thirty feet, at a distance of eight to ten feet from the ground, offering a secure seat to any who, like the lowly Zacchæus, wish to have a view of all that pass that way.

In No. 256 we have a picture of the sea coast with the surf breaking on the shore. Just outside that surf, as we were coming up from Gaza, we observed a large shark moving about, and on going down to the beach at Askelon at sunrise to have a swim, I saw two sharks loitering about within a few yards, apparently waiting for me, and not wishing to gratify their appetites I dabbled in shallow water. These sharks are larger than any I have seen in these latitudes, and their appearance reminds us that this is the coast on which the prophet Jonah was disgorged by the great fish that had swallowed him up. A few miles further up the shore to the north is the Neby Yunas, the monument of Jonah's, which vies in tradition with another point near Saidon as his landing-place. The booths used in the gardens by the watchmen of the fruit trees also remind us of his history, for they are similar in construction to that gourd-covered booth he rested in outside of Nineveh.

Mentioning booths, I would draw attention to 1 Kings iv. 25. *And Judah and Israel dwelt safely, every man under his vine and under his fig tree.* This, of course, is a poetical expression, but as at the present day, during a portion of the year, the natives actually do live under trees or in booths, it is reasonable to suppose that the same custom obtained among the Jews, and, in fact, we know it did obtain, Lev. xxiii. 42; Neh. viii. 14; 1 Sam. xxii. 6. And such being the case it is probable that the names of trees giving the necessary shelter would be used in the poetical expression.

To live in booths shaded by the vine, by creepers, by dry bushes, is very common at the present day, but I am not aware that the fig tree is ever used as a shelter for man. On the contrary its rank leaves have a most repulsive odour, the juice is supposed, when it touches the eye, to produce ophthalmia, and to sleep under its shade is said to be a certain receipt for the production of fever. In Spain, also, there is the same opinion; a fig tree near a house is said to be unwholesome, and to keep an animal under it for any length of time is supposed to produce madness or death.

About Askelon there are the most delicious apples, which were just now ripe, fully equal in flavour to any I have tasted elsewhere, but, in keeping with so many of the Palestine fruits, they are sadly in want of proper treatment; they have dwindled down to one-half the bulk of an ordinary English eating apple. Dr. Thomson speaks of these apples of Askelon, but Dr. Tristram ("The Land of Israel," p. 604) suggests that he mistook the quince for the apple, and doubts whether apples grow in Palestine at the present day.

Although so little remains of ancient Askelon *in situ*, coins and bronzes are constantly being turned up by the plough and by the crumbling of earth during the heavy rains; at this time agents come down from Jerusalem and buy up all that they can lay hands on, and sell at immense prices to pilgrims in the Holy City. I was able to secure on the spot some small bronzes of the Egyptian gods, Osiris and Isis, and also a very elegant mutilated figure of Hercules, and the remains of a fish god; the greater portion, however, of the bronzes are distinctly Egyptian, and similar to those in the British Museum; the coins found are generally Roman, or of the Crusaders, or Cufic.

5th June, 1867.—Askelon is ten miles from Ashdod in a straight line. We left the former at 8 a.m., and passing Abu Mushad, an eminence and tomb from whence the minarets of Gaza can be seen, we passed in a few minutes remains of buildings of Ibrahim Pacha, and among other objects a well 120 feet deep, with a staircase running down around the side. Leaving Mejdal with its minaret to our right, we came on Hamâmeh at four miles, situate on the edge of the sand-drift, the next village to be submerged. A Greek Christian came out to meet us and insisted on our coming into his courtyard and feeding on watermelon, and then produced several articles for sale, among the rest a pot of well-preserved bronze Roman coins. We had not time, then, to strike a bargain, and on inquiring for them a few weeks after I learnt that a commissioner for a collector at Beyrout had carried them off. On leaving this village we kept the drift sand close to our left, and shortly passed a small masonry erection in which water is daily deposited by the people, from the neighbouring villages, for the benefit of passers-by—a very kindly arrangement in a dry land if they would only take the trouble to keep it clean. Passing now over a country tame and uninteresting, we arrived at Esdud (Ashdod) shortly after mid-day. I went from here to the sea beach, a distance of three miles, in search of any remains of the ancient city, but nothing could I see but endless mounds of drift sand, over which we stumbled ankle deep; on the shore itself are the ruins of a rectangular barrack of sandstone, similar to the walls of Askelon, and at about a third of the distance on the road to Jaffa. It probably was a station connecting the two cities; it measures about 120 feet by 50 feet, with semi-circular flanking towers at each angle, and two on either side. No ancient pottery or glass was observed about, but there were a few broken bottles of modern construction, which looked as if they had once held beer.

Ashdod itself is a mean Mahometan village, situated on a gentle eminence, surrounded with beautiful gardens and palm trees, but with no signs whatever of its ancient grandeur visible, if we may except the sarcophagus shown on photograph No. 263, supposed to be of an early type. The view of the Persian wheel (N'aura) driven by a camel, and of a palm tree, Nos. 264 and 262, were also taken in this village. To the west the sand rises high above the gardens, and each year swallows up a portion. In the centre of the village is the usual elevated mound of rubbish, here of a considerable height, ending in a conical peak—a good theodolite station, and there we proceeded at sunset, just the worst time for observing, as then the fellahin are returning from their daily labour. We were soon surrounded by the entire village, who in a half defiant, half good-humoured manner advanced to the attack, determined to capture our instrument, which they considered to be exerting some sinister influence over the country; luckily the mound was steep, and as they came up we pushed over the foremost upon those behind and managed to keep our position until the pole star was observed. I was obliged, however, to complete the observations next day when the men had left the village. The sheikh came in the evening and made his apologies for the uproar, and affected great penitence.

On June 6th and 7th the country to north and east was surveyed. About one mile N.E. of Ashdod the wády from the Valley of Elah (now Wády es Sumt) effects its junction with another from the south which runs by Kuratiyeh. They are here the merest ditches, about 6ft. wide and 4ft. deep, and just now are quite dry. Their course was followed to the sea coast at a point four miles north of Ashdod, where they form lagoons of shallow water supplied by the oozing up of water from the soil, and separated from the ocean by a bar of sand. Neby Yunas is built on an eminence at this point.

The villages on the flat plain about Ashdod are as like each other as so many peas, and there is very little of interest to be seen in them, but they had nearly all to be visited, if it was only for making sure of their names, as the people were not at all inclined to give information. Many of them had been down south working on the Suez Canal, and seeing our surveying instruments, they concluded that the English were going to cut a rival canal through Philistia and the Judean mountains to the Dead Sea, and to this they strongly objected, as they considered it would be the signal for our retaking possession of our inheritance; for they told me over and over again that they had taken the land from us, and that we should wrest it back from them again, but then many of them added "You will have to fight for it, we will not give it up without a struggle."

At el Juseir we saw a white marble column and effaced capital, and at Summeil, a few bevelled stones. The ruins of the ancient towns about here are probably buried only a few feet below the soil.

On the evening of 7th June we were camped at the foot of Tel es Safiyet, the *Alba Specula*, or *Blanche garde* of the Crusaders, probably

Gath of the Philistines. It is fifteen miles due south of Rámleh, and twelve miles to S.E. of Ashdod; the meaning of its name, *Alba Specula*, will be understood on reference to the photograph (No. 265), where the glittering white chalk cliff at S.W. angle is shown, a conspicuous object which can be seen for many miles to west.

To the east the country was surveyed, the first range of the hill country; the only villages of interest visited were Kudna, where there are remains of a castle, ancient walls, and large stones about; much of it appears older than the time of the crusades, but there are also pointed arches, casemates, and plenty of modern ruins. It is five miles S.E. of Tel es Safiyeh, and to its north by two miles is the village of Deir Dubân, where are enormous caves similar to those described by Dr. Robinson at Beit Jebrin. In one several inscriptions were found cut on the rock and on plaster, apparently over a passage which has been built up. The Syrian Bishop of Jerusalem pronounces them to be Syriac, and to be the work of Christians who emigrated here from the Holy City at the time of the Persian invasion. There is a Byzantine cross over one of the inscriptions.

On June 10th we left Tel es Safiyeh for Yebneh Port, a distance of seventeen miles in a straight line N.W.; passed along the Wády Sumt by Tel et Turmus (a village with no hill) and Kurtineh, and then turning off to al Mesmiyeh went due north over undulating hills past Emazmah (ruin) to Shahmeh on the north bank of Wády Surah. This latter wády runs N.W. through a gap in the hills of el Mughâr and Kutrah, passing to the east of Yebneh town, and approaches the ocean about one mile to the north of the ancient port of Jamnia (Yebneh). There are at the mouth of the wády lagoons and fresh water springs; but no water in the wády during the summer months.

I may here make a suggestion with regard to the position of the cave of Makkedah where the five kings took refuge when pursued by Joshua from Gibeon. Joshua x. 5.

We have, Joshua xv. 41, the towns "Gederoth, Bethdagon, and Naameh, and Makkedah" placed together, and we have at the present day, Kutrah and Mughâr close together, Naameh six miles N.E., and Beit Dejan about twelve miles to north. I have to suggest that the village of el Mughâr (the cave) is the modern name of the ancient Makkedah, and the desirability of making further researches at this place. It is true that several authorities place Makkedah further to the south of this point by several miles, but the writer of the article "Makkedah," Smith's "Dictionary of the Bible," appears to establish the fact that it must have been situate at no great distance from Ramleh, and el Mughâr is less than eight miles from that city.

There was little to be seen at Yebneh town except the church now used as a mosque, but, excavations would probably uncover the old fortifications; it is admirably situated as a fenced city. The ancient port is some four miles distant; a large plan of it is given on one of the Admiralty charts of the Syriac seas. The photograph No. 267

gives a view of the southern end of the port, where are many confused ruins.

From this point we rode up to Jaffa, ten miles, to obtain our letters, the weather extremely oppressive in spite of the sea breeze. —“As cold water to a thirsty soul, so is good news from a far country.”

June 12th. We left Jaffa for the little village of Surah, twenty-three miles in a straight line. For the first ten miles to Neby Ghundeh, we passed remains of walls and terraces on the hills which have now a coating of drift sand over them. We passed next through olive groves and gardens past Zernuka, until crossing over some undulating hills we came across the village of Akir, the ancient Ekron, with no remains of its fallen greatness. The people were very civil, and one old man came out and babbled forth a story about the villagers being descended from Jews. As it is five miles from Yebneh town, the great seat of learning in the time of the Maccabees, there may be some foundation for the story. Ekron is on a swelling mound only about two miles to the north of the Wády Surah, the valley up which the milch kine probably conducted the ark to Bethshemesh, and during harvest time there is a good road all the way. From here we gradually ascended the hills by Mansurah and Kuldah, and passing the ruins of Beit F'ar to our right, arrived at the 'Ain of Surah by night-fall, 870ft. above the sea. We had now a chapter of accidents; the dragoman, who had heard of his father's death that morning, forgot what he was about, and losing sight of us, wandered over the country, leaving us to find our own way. He did not arrive at camp till some time after us, and when he saw me he exploded in sobs, declaring that to have lost us on the road was a far greater grief to him than to have lost his father; he forgot to tie up his horse or give it drink, and so the poor beast tried to satisfy himself and tumbled into the well, whose waters were nearly 4ft. from the surface. On our way in the dark the observation book had been dropped, and add to this our head muleteer was taken ill with strong fever, and Musa, his second, was stung by a scorpion on the big toe. The poor fellow was brought into my tent in a very exhausted state, and on finding that the application of strong liquid ammonia to his toe had no effect, I applied it to his nostrils, saying, “Musa, smell this.” He sniffed, but it had no effect. “Try again, Musa.” Again he sniffed, but his agonised writhings prevented his nose touching the bottle. “Sniff as strong as you can, Musa,” and this time he regularly inhaled the blistering vapour, and fell back motionless as though shot. We had hardly time to think what to do next or to listen to the growing plaint that Musa had been killed, when a loud splash was heard, and a cry that the dragoman's horse had tumbled into the well. The poor beast was swimming, but had no chance of getting out by himself. The guy ropes of the tents were quickly on the spot, one we tied round his head and shoulders, and the other tight to his hock, and soon we were all lugging away at the

animal. By some desperate efforts we at last got him on dry land somewhat worried by the ropes, but not permanently the worse for his rough usage. Among the most energetic of the party I thought I perceived Musa working away, and sure enough it was he, come to life again. After it was all over I asked him how his toe was, but he had forgotten all about it; either the ammonia or the excitement of getting out the horse, had effectually cured him.

In the morning our observation book was found; the head muleteer was, however, very ill with fever, so we had to make this spot our headquarters until 15th June, when he recovered sufficiently to move: it was astonishing how he would swallow strong doses down without their affecting him in the least. A sirocco wind was blowing at this time, when the heat was between 80° and 90° during the nights, and made us all very uncomfortable. In the survey of the country to the north of our camp nothing of importance was observed.

The village of Surah (the ancient Zorah) stands about 1150ft. above the sea, and is situated on the southern end of the hill crest overlooking the valley of the same name. On the opposite side of the valley low down is the ruin of 'Ain Shems (the ancient Bethshemesh), and from our stand-point it is easy to see the line which the milch kine would have taken in coming up from Ekron, and also the valley which the men would have ascended in carrying the ark up to Kirjath-jearim. Looking across the valley to the opposite crest we can see the ruin of Tibneh (the ancient Timnath), where dwelt Samson's betrothed; it is 740ft. above the sea, and therefore not in the plains, as some writers have stated. Samson in going down to it would descend 700ft. into the valley and then ascend again 350ft. to Timnath. It is apparent from the sacred narrative, Judges xv., that the corn was growing in the valley, as it does at present, with the vineyards and olives lining the side of the hills; for we are told that the Philistines *came up* to Timnath and burnt Samson's wife and her father with fire. Tibneh lies between El Bureij and Ammûrieh.

The hills about bear witness of there having been once an industrious race inhabiting these parts, but the words of King Solomon may apply to the present owners, "I went by the field of the slothful and by the vineyard of the man void of understanding: And, lo, it was all grown over with thorns, and nettles had covered the face thereof, and the stone wall thereof was broken down. Then I saw and considered it well; yet a little sleep, a little slumber, a little folding of the hands to sleep: so shall thy poverty come as one that travelleth, and thy want as an armed man."

Photograph No. 271 gives a view of the valley of Zorah, and No. 272 of a curious monument placed upon a hill one mile to the west of the village; the top stone is 6ft. long and 3ft. by 2ft., and has a groove 2ins. deep and 3 broad down the centre of each side—it appears to have been for a mill of some sort, probably for olives. The hill country commences to the east of 'Ain Shems, and the valley of Surah is seen no

longer, being broken up into the steep defiles of W. Ismail, Muttúk, al Balút, and others coming down from the hills; there are many ruins about the broken ground formed by the junction of these wádies, and no doubt it was once densely populated. Many cut stones were found about of large size, which had been used as mills. In W. Muttúk, near Teshua, we found running water and a spring hard by, but it is soon absorbed by the thirsty soil.

Near Tantûrah there are the remains of a tower 30ft. square, of large squared stones. The ruins of 'Ain Shems extends many hundred yards east and west. The points were fixed independently by Lieut. Anderson and myself; in our longitude we differ somewhat, and in our latitude one-quarter of a minute (in my letter, 22nd Nov., 1867, printed in the *Times* and in the "Quarterly Report," this difference was given as four minutes, the one-quarter being turned into four.)

June 15.—We left 'Ain Shems 2.5 p.m., and arrived at a spring, Ben el Lemûn, at 2.45, and keeping to south arrived at Tibneh at 3.30. There are few vestiges here except caves in the rocks. Close to is El Bureij, where we arrived at 3.43. Passing from here west we were at Am-mûrieh at 4.20 p.m., where there are the remains of a castle, and progressing to west, at 4.57 we came on Khubel Ferrad, where there are extensive ruins; keeping to west several observations were taken, until it became quite dark, and our guide brought us back over the hills to Beit Kalif, 1200ft. This is a village of some importance at the present day, but is not mentioned in Scripture. We here experienced the difficulties of Eastern hospitalities; we had run out of bread, but were too numerous a party to sponge upon our neighbours, and the people absolutely refused to sell, as they considered it too degrading; our dragoman had to go from house to house and beg a loaf from each, which we found means to repay afterwards.

June 17.—Leaving Beit Kalif at 6.45 a.m., we passed Neby Bulus and Telu Alia and Yarmuth (Jarmuch), where there are extensive ruins, and passing through wadies and marshes we ascended the hill of Keishûm (1150 feet), and leaving El Gîna to our right we traversed a range of hills bounding Wády Sumt to the north. On our way we met two old men, who assured us that the country belonged to the Christians—the constant repetition of this maxim sometimes appeared to be satirical.

11.5 a.m we passed Moghullis, and passing a quarry to the left arrived at Shukh Darrl at noon; here we were (600ft.) on a projecting spur, $1\frac{1}{2}$ miles due north of Tel es Safiyeh. From this, proceeding down to the plain due north, we came upon a very extensive ruin in the valley, called K. er Rassim (foundations), and after examining the country arrived at Tel Takariyeh by sunset.

We were now in the valley of Elah, and from this point I surveyed the country to east and south. On 19th June examined the country about Um Burj, and found extensive Christian remains on the brows of hills, large lintels 6ft. long and 2ft. thick, with crosses, &c., sculptured

on them; the stone has a bell-like sound when struck, and is of soft mezzeh.

Near Um Burj is a cave or columbarium. On getting on the hog's-back, on which is the ruin Jedeideh, we appeared to be among ancient remains, but before this everything to-day seemed to be of the Christian period; arrived in evening at Tel Bulnard, two miles N.W. of Beil Jebrin.

June 20.—Musa, who had gone up to Jerusalem for bread, arrived in an exhausted state, having been pursued by two mounted and four foot Bedouins; he had turned down Wády es Sumt and come over the hills, leaving his pursuers behind. We were engaged the whole day in examining the country up to Arak Menshiyeh, where we encamped. Here there is a strange mound of earth (see photograph No. 274), called the Arak, while the village is distant some 400 yards or so. This mound is triangular in plan, and appears to be of Assyrian origin: it would be very desirable to cut a hole through it and examine its contents.

June 21.—We passed down by Falagy, past the ruins of Eglon and Lakis, and villages of Bureir and Simsim to Nigid. Nothing remains to be described here after the account of Dr. Robinson. At Eglon we found Bedouins from the south, but one of them got his ears boxed by Capt. Phillips for venturing too close to his horse, and they did not bother us further.

June 22.—From Nigid I wished to take a straight cut east to Dwaime through the deserted hills south of Wády Hessy. A villager volunteered to accompany us, our baggage going round by the royal road, the distance in a straight line 18 miles. Leaving at 7.10 a.m. we saw from the top of the first eminence the ruins of Zeil, Bableyeh, Aran, and Beit Duas, on the hills above Simsim. Leaving this point at 7.45 a.m. we passed to east through hills of indurated shells, and leaving caves to our right arrived at K. Kums at 8.7 a.m.; left 8.10. Viewed Neby Húd on W. Mehowreh 8.11, and at 8.22 came on K. Jelameh, a ruined site, 130 yards by 40 yards, with cisterns. At 9.10 a.m. we got down into W. Husy; a fantasia was here enacted for our benefit. Two Bedouins came up and robbed a camel driver, but we did not see the joke in the way it was intended. At 11.5 a.m. we arrived at Tel Hessy, an artificial mound to S.W. of Wády, elliptical N.W. to S.E.; water running in Wády; left 11.23. We now found a beautiful stream of brackish water in Wády Hessy, and turned south to Tel Nargily. At 12.30 passed a hard clay threshing floor, and at 12.40 p.m. arrived at the Tel. Here there is a spring of fresh water welling out of the rocks in the midst of a salt and barren land. The Tel is artificial; a great deal of cut stone and concrete about, and graves on top; extensive ruins on all sides, but of no decided character. Left 1.10 p.m.; passed Arab camp, where they wished us to stop the night, and passing by some ruins and caves arrived at Dawaimah at sunset.

June 24th —From the wely near this town observations could be taken to many of the most important points to the north. We left at

7.45 A.M. for Beit Ulla; and at 9.50 A.M. passed Tel ed Dewar, an oblong mound 50ft. high, close to the village of Lukbeibeh, one of those villages which the government have caused the Bedouins to establish. At 11.5 passed a crusaders' ruin, and at 11.45 arrived at Santa Hannah, close to Beit Jibrin, an artificial mound. I here broke the glass of my prismatic compass, and found the instrument useless for the remainder of the day. With the aid of a ruby, however, which I had purchased at Askalon, one of the photographic plates was cut down in the evening to the required size, and made to replace the broken glass.

June 25th.—Several ruins were examined, but nothing of importance. We encamped in the Wády es Sumt (the valley of Elah) under a large Butm tree, probably the largest in Palestine. See photograph No. 275. To give an instance of the adroitness of the Arabs I may mention a scene which took place here. On arriving at our tree, we found the cook and a fellah struggling violently, and each with a stone in his hand cracking into the other's head. After separating them I inquired the cause of the disturbance, and the cook said the fellah had kicked dust into the soup, but the man asserted that the wind had blown it in. They were both very violent in their movements, and the fellah accused the cook of having pulled his beard, and after several absurd gesticulations, he picked up a tuft of hair from the ground and showed us the place where it had been plucked from his chin. This of course was a very serious offence, only the cook denied having touched the man's beard. The dragoman at last came up, who soon settled the matter, for he recollected that the cook had just cut off some huge locks from his head, which the fellah had made use of by declaring they were part of his beard. On looking at him closely we found that his beard had never been touched, but it was one of those which do not grow luxuriantly just under the chin. The man had been rather badly cut about the head by the stone the cook had wielded, and was bleeding profusely, but he would not allow his wounds to be dressed, as then he said the sheikh of his village would not see how he had been treated, and he marched off indignantly to call on his friends to attack us during the night. We were just now in the track which the Bedouins use on their marauding expeditions, so we found ourselves threatened from two points; all we could do was to keep strict watch all night, and hope that the villagers would cross the Bedouins and keep clear of us. We awoke in the morning without any mishap, but not by any means due to our watchers, for on waking once near dawn, I found all snoring fast, and could not disturb them by sticks or stones.

Near this tree probably took place the combat between David and Goliath. Suwaikeh (the ancient Sokoh) is on the hills to the west by one mile. From here we made our way surveying to Beit Atab and Deir al Howa, both prominent points in the hills of Judea, 1790 and 1780ft. above the level of the sea. From here we observed to the points where we had observed from in the plains. June 28th we arrived in Jerusalem.

ON THE PRÆ-ISRAELITE POPULATION OF PALESTINE AND SYRIA, AND THE ASSIGNMENT OF ARCHAIC REMAINS.

BY HYDE CLARKE.

Foreign Secretary, and Secretary for Comparative Philology of the Ethnological Society, Corresponding Member of the American Oriental Society, Member of the German Oriental Society.

THE ethnological arrangement of the Canaanite population has been none the less obscure and the occasion of controversy because in the Mosaic record that population is embraced among the children of Ham.

Of the population we have no representatives in sculpture or picture, and no identifiable modern descendants. Language does not appear to help us, because the language is unrecognised. The few words in the Scriptures have not proved of any use. There are no monuments that give us assistance. The Moabite Stone belongs to a comparatively late period, when Semitism was predominant.

Under these circumstances a solution is to be attempted, which has been found practicable elsewhere, and that is the names of the places. Most of these, as we have them in the Bible, are Hebrew, and, consequently, afford no help, but there are terms which are not Hebrew. A safe class for such an essay is that of the names of rivers. These are ancient, and if they are not Canaanite, they will reveal to us some antecedent population. Names that we can take are—

Jordan.	Torna.
Kedron.	Bostrenus.
Orontes.	

To these a Hebrew interpretation cannot be attributed. It will be noticed that they all contain the radicals R D N.

We shall find these are the radicals of many ancient river names—

Rhodanus Gaul.	Iardenus Greece.
Rotanus Corsica.	Prytanis Asia Minor.
Eridanus Italy.	Parthenias .. Greece.
Triton Crete.	Bradonus Italy.
Triton Italy.	Vartanus Sarmatia.
Artanus Bythinia.	Dyardsnes.... India.
Drinus Illyria.	Kartenus Mauritania.
Iardanus Crete.	

Of the form, D R N in Kedron, we have here—

Aternus Italy.	Matrona Gaul.
Tarnis Gaul.	Saturnus..... Italy.
Duranus Gaul.	Liternus..... Italy.
Trinium Italy.	Vatrenus Italy.
Matrinus Italy.	Vulturnus Italy.

Of the form, Orontes, we have only

Barentinus Italy.

There is another form

Mæander..... Caira.	Ætumander .. Asia.
Skamander.... Mysia.	Alander Phrygia.
Skamander.... Sicily.	Tarandrus Phrygia.
Orumandrus .. Cappadocia.	Akalandrus .. Lubanias.

A fifth form gives

Tanarus Italy.

The most casual observer can scarcely hold these forty examples to be casual, and the Semitic scholar will recognise among the prefixed consonants *M T S*.

The question may now be thus directed. Are there languages on the area which will afford a word that is conformable? There are such in the Caucasus, and in Georgian, Dinare, and Mdinare, signifying "River."

If this be a true test, then the other Caucasian words for river should conform to it. They include

Georgian and Min-	Mingrelian	Tsqari.
grelian	Swan	Gangalitz.
Swan or Suan	Swan	Veets.
Georgian	Ancient Phrygian .	Vedu.

These give the same forms with the various inversions of the root letters already seen in *R D N*, and with the same prefixes. Familiar examples are—Arabius, Iberus, Beris, Rhebas; Pison, Sobanus, Phasis, Nymphæus, Banes, Cyrus, Araxes, Akheron; Ganges, Kana, Naka, Bætis, Duba, Tava.

Of prefixes may be cited Marubius, Mekhara, Mogrus; Tiberis, Tigris, Tanazer, Sarabis, Siberis, Sangarius, Khaboras, Liparis, Lokra.

On this system to the root Gangal or Gangir are to be attributed the Kanah and the Lake Samakhonitis; the Abana and the Lake Baneas; Euphrates, Keprates, and, possibly, Kaprusa.

Of these it would be easy to give analogous examples from other sources, but having sufficient instances to identify Kanah, as a river form, and which is explained by Ganga, it is useful to refer to the lake name Samakhonitis, recorded by Josephus. This head lake of the Jordan is marked as receiving *three* rivers and springs. *Three* in Georgian and Swan is Sami (conforming to the main Tibetan and Chinese group), and Sami Gangalitz would mean in Swan, Three Rivers. This instance goes beyond the casual.

The Arnon conforms with Arno, Rhenus, and other well known types, and so do many other of the names of the Syrian region conform to external types belonging to a homogeneous class.

Certain it is that the languages of the Caucasus, belonging strictly

to the Georgian branches, have relation to one ancient language, which I have denominated the Palæogeorgian or Palæoasontic, in which were formed the oldest geographical names of rivers, islands, countries, mountains, volcanic regions, metalliferous sites, and cities.

In the same way that several roots form what may be called "river" names, so there are several transposable roots used for "fire" names. These names are applied to volcanoes, mountains, volcanic countries, and some cities. They include the well known names of Moloch and Baal, and are referable to Caucasian roots for light, fire, flame, sun, day, &c. All are founded on one mythological system.

With such names as Ebal, Gilboa, Libanus, Thabor, Atabyrius, Abarim, Peor, Hebron, will be found to be allied Abila and Kalpe, Olumpos, Alpes, Sipylus, Pyrenœi, and a vast group, widely distributed over the same regions as the "river" names.

While to so many countries "river" names are given, as Sardinia, Dardania, Mauritania, Britannia, Europa, Arabia, Iberia (2) Hibernia, Kupros, Umbria, &c., we find such fire names as Italia, Sicilia (Sikilia), Cilicis (Kilikis), Apulia, Lipari, Melita, Mitulene, Thule, Ætna, Vesuvius, Khimæra, Asphaltites, &c. &c.

The fire and water names again bring us in contact with a large group of names in comparative mythology such as Moloch, Milkom, Mulciber, Vulkan, Baal, Apollo, Pallas, Pollux, Cybele, Athene, Hephaistos, Vesta, Castor, the Dioskeuroi, Saturnus, Poseidon, Nereus, Triton, the Nymphs, and many others, representing nature worship.

The means of conciliating the linguistic phenomena are afforded by the Caucasian languages in their modern and ancient forms, including the materials available in Phrygian, Lydian, Carian, Lycian, Thracian, and Etruscan. The means of conciliating the ethnological affinities are afforded by the Mosaic record, when properly understood, and by the facts of comparative mythology recorded there and elsewhere.

If we set aside the false interpretation of Cush introduced in the Septuagint as Ethiopia, then we reject Ethiopia from the scheme of Paradise and of the Tholedoth, and in the latter we recognise among the children of Ham not African races, but the Tibeto-Caucasian, and among these the Canaanites as a branch. We thus get a harmony of the Mosaic record illustrated by the canon of archaic history here restored, and to be further illustrated when the subject comes to be discussed.

Under this interpretation we find Syria and Palestine conquered and occupied by the races which should occupy them when the adjoining region and the whole western world, from the Asian frontier to the Atlantic, was occupied by one great empire or succession of kingdoms using the same language. This explanation gives us a better view of the circumstances of the Israelite invasion, and what we may look for in præ-Israelite investigations in Palestine and Syria.

In a practical point of view we get another standard to enable us to judge of the probable antiquity of sites, because if the name indicates a

Tibeto-Caucasian or Canaanite connexion, we may look for earlier remains in deeper excavations.

To apply this test successfully we must observe what was the condition or relative development of the Palæogeorgian language, as used by the Canaanites and their kindred. It is evident it had not reached the state of fixity of the Hebrew and its congeners, nor the same stage of advancement. All the Georgian languages are now fixed languages in comparative grammar; but the Palæogeorgian belongs to the earlier stage, when there were several types of the same root, and when the radical letters were susceptible of permutation at will. As the Hebrew is a language highly developed, it is consequently relatively later than a language in a less advanced condition.

With regard to the Palæogeorgian in the case of Dinare, the *D* and *N* represent water, and the *R* gives the idea of flowing or running, but it was indifferent to the Canaanite where he placed the *R*, at the beginning, middle, or end, and the other letters were similarly permuted. In Jordan it is in the beginning, in Kedron and Orontes in the middle. In Arnon we get an exemplification of another property, for the *R* of the same type is worked with only one letter of the root for water, *DN* or *ND*.

These properties of the language, while in the mass they afford characteristics for determination, yet in the case of an individual word in our present state of knowledge, they expose us to possible difficulty. There is little apparent difference between the "Fire" term Tabor and the "River" term Tiber (probably Tibur).

It was perhaps such properties in the Palæogeorgian language, of which we find traces even in early Hebrew, which, in the schools of Babylon and Nineveh, were developed in the dual system, and afterwards in the form of the Cabbala were made to react on Hebrew thought and Hebrew composition. Among the Caucaso-Tibetans we have such carefully selected pairs as Abila and Kalpe, Kastor and Pollux, Sardinia and Corsica, Britannia and Hibernia, Scilla and Charybdis. We have the germs of an organised dual system.

The area of the Caucaso-Tibetan migration, so far as determined by the local names, reaches from furthest India to the Atlantic. It embraces consequently the whole range of megalithic monuments, which in the west have been so fancifully assigned as Druidic. On this area, near the point at which the Caucaso-Tibetan race probably descended from Thibet, we find a living race, that of the Khasias, engaged in the building of megalithic structures in our times. We thus again get a concord of facts. The Celtic theory, or any other, does not cover the area of the monuments, but in the case now assigned, the whole area of such monuments can be assigned, and we bring into connection the old and new monuments of India, of Persia, Palestine, the Caucasus, North Africa, Gaul, and Britain. A migration of various tribes, headed by a leading race, would bring with it monument-builders and metal-workers, and many rude races exercising arts, which have been commonly regarded as denoting high civilisation.

The facts here brought forward give a new interest to exploration in Palestine and Syria, for they may enable us to determine many ancient monuments and works of art, as also to account for phenomena of population. With the help of the Biblical record they will give us a far better and safer view of comparative mythology, previous to the Aryan period, than we have yet obtained. What were chance conjectures of men of learning will, in many cases, be converted into ascertained facts. It is within compass that we may, in the countries referred to, find characters or inscriptions, far older than the Moabite, in a cuneiform letter and Caucaso-Tibetan language.

The statements here made already rest on the testimony of numerous facts, but they are so new that there has not been time for their full development. When the strangeness of them has passed away, and instead of looking for a Scythian language without the means of interpretation, we begin to avail ourselves of the neglected languages of the Caucasus, for which we have liberal materials, then the Bible, and the scenes of its events, will become of the greater interest and value in throwing a new and clear light on that obscure and remote epoch of the western world between three thousand and four thousand years ago, which has as yet wanted a history. In return the Bible will receive further and safer illustrations, in addition to those as yet obtained.

LETTER FROM DR. CHAPLIN.*

"A few days ago I received a visit from Herr Victor zur Helle, of Vienna, who informed me that he had been able to enter the hitherto unexplored southern passage of the 'Ain es-Shefa, and had followed it to its termination, 96ft. from its commencement. He had lost his compass in the water, and consequently could not be certain of the exact direction of the passage, but believed it to be south-west. As the water is seldom so low as to admit of an examination of this canal, and the winter rains, which are now anxiously looked for, may soon close it again, I took the earliest opportunity of descending, and the following are the notes of my observations:—

"The descent was made on the 29th of November, 1870. The passage commences at the southern end of the western wall of the basin. It runs 43ft. 6in. in a direction S. 84 W., 13ft. 5in. S. 80 W., 5ft. 4in. S. 1 W., 12ft. 6in. S. 65 W., and, lastly, 27ft. 6in. S. 4 E., its entire length being about 102ft. At its termination it is blocked up by fallen, or most irregularly constructed, masonry, and has no basin. A stick could be thrust in under the blocks of stone for about 3ft., but no continuation of the passage could be made out. The floor slopes towards each end, the highest part being about the middle. At the entrance,

* This and the following paper are reprinted from the *Athenæum* by kind permission of the editor.

and for some 20ft. beyond, the water was a little over knee-deep; to the middle the passage was nearly dry, and at the further extremity the water reached 6 or 8in. above the knees. The canal is 4ft. high and 3ft. broad at the entrance, and of about the same dimensions throughout, except where narrowed by fallen masonry, or widened or made higher by the disappearance of the walls or roof. Only at one spot was there any difficulty in passing. The walls are of rough masonry, some of the stones being of large size. The roof, where perfect, is of thick broad blocks of limestone, laid across. No arches, columns, or ornamented stones were observed. The rock could not be detected anywhere, though it is possible that it may in some places form the floor. Plaster still covers portions of the sides and floor, but the passage is in a very ruinous condition. Water was observed trickling down from between the stones of the southern wall, at a spot not far from the entrance, and the sides and roof were in some places very wet, in others nearly dry. No appearance of a fountain was discovered, though carefully searched for.

“ Advantage was taken of the low state of the water to examine the basin somewhat more minutely than has (I believe) hitherto been possible. It was found to measure, from north to south, in the middle, 11ft. 9in.; from east to west, in the middle, 6ft. 6in.; from east to west, opposite the entrance to the lower passage, 5ft. 10in. The floor is of rock at the northern part; how far the rock extends to the south could not be ascertained in consequence of the depth of the water. The walls are everywhere of rough irregular masonry. Plaster still remains on the northern and southern sides; that on the latter being continuous with that of the lower passage. The plastered surface on the northern side extends farther to the east and west than the side walls which abut upon it. The plaster is made with small white stones, instead of the usual pounded pottery. Water was trickling in a rather copious stream from under the masonry on the east side of the northern passage at its termination, and it was observed that here the masonry rests upon plaster, from between which and the stones the water was running. Further north, also in this passage, the walls rest upon a plastered surface.

“ It can hardly, perhaps, be said that the mystery which has attached to this remarkable well is even now entirely removed; yet every fresh observation tends to confirm the opinion that *its water is derived solely from the percolation of the rains through the débris upon which the city is built*. There is no evidence to show that it proceeded originally from a subterranean source; and it is not likely that, if a fountain had existed here in ancient times, it could have escaped mention by either the sacred or profane writers. Probably there was formerly a pool near this situation, into which the water coming down the valley (which drains a large extent of surface) was carefully conducted. After the destruction of the city and the consequent filling up of the pool, the water would still find its way down to the same spot, and either well up

to the surface or be reached by means of a shaft. As the level of the city continued to rise, a longer shaft would be required, and thus in the course of ages what was at first a superficial collection of water would become converted into a deep well. "THO. CHAPLIN, M.D."

The following is an extract from Captain Wilson's "Notes on the Ordnance Survey of Jerusalem":—

"The es-Shefa well supplies the Turkish baths in the old cotton market. From the bottom of the shaft a channel, cut in the rock, and vaulted with masonry, leads down in a southerly direction to a small cave or basin, from which the water is obtained in summer by a man who descends for the purpose. No leakage was visible at the sides of passage; but the greater portion of the water probably passes through the deep rubbish above, and thus acquires the peculiar Siloam flavour. The supply and quality cannot well be improved."—*Notes*, p. 85. Plate XXII.

NOTES ON CERTAIN NEW DISCOVERIES AT JERUSALEM.

BY M. CLERMONT-GANNEAU.

(1.) *Hebrew inscription in Phœnician characters*.—This inscription, discovered by myself several months ago, is the only monumental text which goes back to the time of the kings of Judah. It belongs authentically, by the very position which it occupies, to the history of Jerusalem. I cannot yet publicly point out its origin, in order not to interfere with the steps taken for its preservation. I will confine myself to saying that it has probably a religious signification, as is proved by the words *beit* and *Baal*, which are very distinctly to be read.

(2.) *Roman inscription*.—This text is the second which has been found up to the present date, belonging to the Roman occupation of Jerusalem—the first being the votive inscription of Antoninus, built into the southern wall of the Haram. It came to light in the demolition of an old building; unfortunately it is incomplete. We read only the following:—

LEG' X' FR'
LIUS · SABINUS
NA · PRINCEPS
VSD · D · D'

It is a dedication made by a *centurio princeps* of the Tenth Legion (fretensis), named (Ju?) lius Sabinus, to another officer, probably superior in grade, belonging to the same legion, whose name is wanting. The interest of the text depends principally on the fact that the

Tenth Legion formed part of the army which besieged the city under Titus. We know, from Josephus, that this same legion had been left as a garrison of the conquered city; probably it continued there under Hadrian and his successors. The form of the letters would seem to fix the time of the inscription to about the reign of Caracalla.

(3.) *Fragment of vase with Hebrew Phœnician characters.*—This fragment, picked up in one of the valleys which surround Jerusalem, by a French traveller, M. Maurice Vernes, is of a rather soft limestone. On the convex face can be distinguished elegant mouldings and fluting; it is even possible, following the plan of ornamentation and the curve, to restore the vase to its primitive dimensions and form; it would exactly resemble the vases on Asamonean coins. On the concave face are traced several signs which appear to have a numerical value, and a *Kheth* perfectly clear in the Phœnician form. I think it must be the initial of the word *Khomer*, the name of a measure; the numerical signs probably indicate certain fractions of a *Khomer*. The vessel thus bearing the official stamp of its exact measure must have been used for religious or commercial purposes; the ornamentation of the vase and the use of the archaic character would incline us to the former hypothesis; we know besides that the Jewish ritual required for certain sacrifices offerings exactly measured.

(4.) *Greek inscriptions in the so-called Tomb of the Prophets.*—I have discovered in this curious crypt, under the stucco which covers the walls, a dozen or so of Greek Christian inscriptions, real *graffiti*. The greater part are proper names. With the patronymic twice occurs the formula ΕΝΘΑΔΕ ΚΙΤΕ (*sic*) = here lies, and ΘΑΡΧΙ (*sic*) ΟΥΔΕΙΣ ΑΘΑΝΑΤΟΣ, *courage, no one is immortal*.

The inscriptions are, almost without exception, each over a *loculus*, and evidently indicate the name of the person buried therein. The crosses which accompany them all leave no doubt as to the religion professed by the dead. As to the date of the inscriptions, the presence of the cross and the form of the letters permit us to assign them to a period as far back as the first year of official Christianity, that is to say, not far from Constantine. This crypt probably served as a cemetery to some one of the numerous monasteries founded quite early in the Mount of Olives. It may be remarked that our epitaph contains the names of both men and women. We must, therefore, conclude that what is generally known as the Tomb of the Prophets was, about the fourth or fifth century of our era, a Christian crypt. And if we want to place here Josephus's *Peristereon*, we must at least admit that the monument has undergone modifications of a later date.

(5.) *Ancient Jewish sarcophagus.*—I had always been struck by the singular appearance of an angel, carved of a hard, reddish-coloured stone, serving as reservoir to a pretty Moorish fountain in the street of the valley (Hâ'rt el Wâd) near the Bab El Kattanin. On the anterior face, the only one visible, were three discs in relief, reminding one exactly of those on the sarcophagus discovered at the "Tomb of the

Kings," by M. de Sauley. With the authorization of Khamil Pasha, I had the sculpture taken down, and was enabled to ascertain that it is really a sarcophagus. The posterior face, adhering to the wall, was in a much better state of preservation than the anterior. I observed there also three discs in relief, but I looked in vain for the inscription which I hoped to find there. Two other discs were engraved in relief on the two extremities; that at the end for the head was slightly concave and had a small button in the centre. This sarcophagus, unfortunately anonymous, is certainly contemporaneous with that which contained the remains of the Queen Sudan. Perhaps the inscription which I hoped to find was on the cover which has disappeared.

(6.) *The tomb of Absalom cleared out.*—Excavations made by me at the western face of this curious monument, on which opinions are so much divided, have enabled me to discover the base and pedestal of the columns, which are, according to the mouldings, purely Greek; the bases rest on a pedestal of 0·80 metres in height, supported, in its turn, by a kind of plinth (*socle*) more than a metre in height. Further, I have completely cleared out the interior of the central chamber, which was almost filled up by the stones thrown in from time-immemorial. I have thus exposed to light the two funnel arcades surmounting the slabs in which were placed the sarcophagi. Three high steps cut in the rock and connected with three other steps above them enabled me to reach the original door of this monument, situated above the cornice. I have found another door, more modern, consisting of a horizontal passage in a level with the chamber, and opening to the exterior, at half the height of the monument.

This chamber has evidently been transformed at a certain time into a place of residence, as is proved by perforations irregularly made in the walls, to admit the air and light, as well as the construction of a new door. These excavations allow me to arrive at the following three important facts:—1. The height, the proportion, and the true aspect of the monument; 2. A proof that the ornamentation is in Greek style; 3. The presumption that the chamber is of earlier date than the ornamentation; thus it is probable that originally a subterranean cave had been cut into the bed of the rock, into which one descended by six steps; later on this cave was isolated by these low and deep cuttings, so as to be transformed into an edifice, and the first door, opening into space, was thus generally, but wrongly, supposed to be a window.

(7.) *Stone of Bohan.*—I think I have discovered, topographically and etymologically, the exact position of this point, of the greatest importance for the direction of the frontier line of Benjamin and Judah. The stone of Bohan, or Bohen, *stone of the thumb*, is nothing else than the *hajar-el-asbah* of the Bedouins—stone of the finger—not far from the place where the Wády Daber enters into the narrow plain which separates it from the Dead Sea. The style of Bohan, as son of Reuben, rests on a very old copyist's error, the cause of which I think I have found and proved in a *mémoire* addressed to the Institute; political events have at present prevented its publication.

(8.) *Pool of Strouthion*.—About two years ago we explored for the first time, Captain Warren and myself, the new tunnel parallel to that which had been discovered under the establishment of the Sisters of Sion some years before. The presence of rock, ascertained in several places, led us to believe that we were examining a large cistern half cut out of the rock, and half covered by two long vaults. Subsequent examination has entirely confirmed this theory, and has proved that at this place existed an ancient pool or *birket*, forming a long parallelogram, cut in the rock, open to the sky, having a mean depth of four to five metres. I have ascertained, by sight and touch, the existence of the rock cut vertically along nearly the whole perimeter of the parallelogram. At a later epoch the reservoir was covered by the two long tunnels at present existing, in order to prevent the evaporation of the water by converting an open into a closed reservoir. The intermediate wall on which the double vault rests, is pierced by six large semicircular arches, forming a means of inter-communication for the two tunnels.

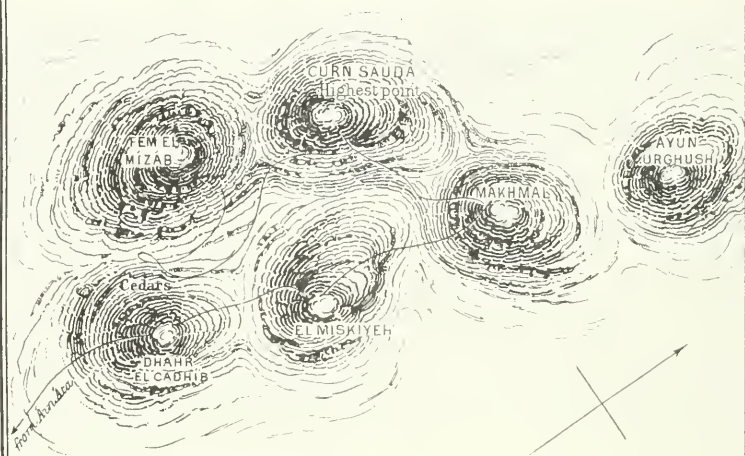
This reservoir, lying in a direction N.W. and S.E. measured about 53 metres long and 15 broad. At its south-east extremity it abuts against the rock on which rose the fortress of Antonia (the present barracks). Here is evidently the pool *Strouthion*, which it has been sought to identify with the *Birket-Israil*, or in an imaginary prolongation of it, in spite of the impossibility of taking account in this theory of the plan of attack by Titus against Antonia as given by Josephus. On the other hand my explanation makes everything clear and conformable to the rules of strategy. Titus evidently attacked the N.W. angle of Antonia; with this object he established an *agger* on the left of the pool *Strouthion*, and against the middle of one of its long sides; then at some distance, about the middle of the pool, a second *agger*, commanding the western side of the N.W. angle of the fortress.

The comparative smallness of this pool, reserved, probably, for the wants of the fortress (Baris Antonia), might even partly account for the name *Strouthion*, which means in its simplest, and, therefore, most probable sense, a sparrow, the sparrow's pool, that is to say, the little pool, by a sort of popular *sobriquet*.

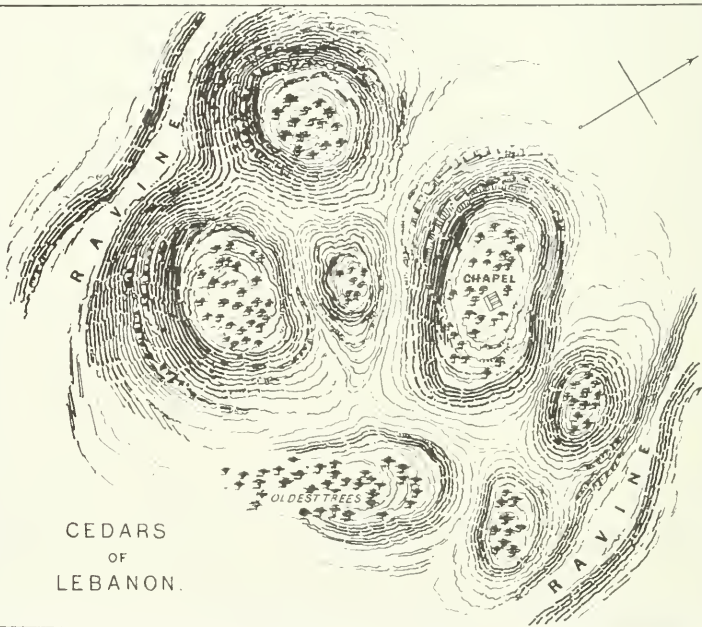
Archæological and historical considerations seem to demonstrate that the transformation of the pool *Strouthion* into a closed reservoir belongs to the period of *Ælia Capitolina*; the splendid stone-work above the double tunnel and extending as far as the *Ecce Homo Arch* must be contemporary; the arch itself is probably a triumphal arch erected in commemoration of the decisive victory of the Romans over Bar Cochebas.

(9.) *Bahurim*.—This locality, celebrated by the passage of David when he fled before the victorious insurrection of Absalom, must be situated somewhere near the Mount of Olives. The different identifications hitherto proposed rest only on purely gratuitous assumptions. There is, however, a point discovered by myself which, topographically and etymologically, may very much better be considered the Biblical *Bahu-*

ROUGH DIAGRAM OF THE SUMMIT OF LEBANON.



Heights	Aneroid	Therm.	Times	h. m.
<i>Dhahr el Cadhib</i>	20.30	• 53°	<i>Jin Ara to top of pass</i>	1.30
<i>El Miskiyeh</i>	20.20	• 75°	<i>Pass to Dhahr el Cadhib</i>	1.25
<i>Makhmal</i>	20.20	• 63°	<i>Dhahr el Cadhib to Miskiyeh</i>	30
<i>Curm Sauda</i>	20.20	• 75°	<i>Miskiyeh to Makhmal</i>	15
<i>Cedars</i>	23.00	• 78°.30'	<i>Makhmal to Curm Sauda</i>	2.00
			<i>Back to Dhahr el Cadhib</i>	2.45
			<i>Descent</i>	1.00
			<i>Cedars</i>	20



CEDARS
OF
LEBANON.

rim. It is a locality, uninhabited, situated between the Mount of Olives, Siloam, Bethany, and Abou Dis, and called by the fellahin *Aheil't fakhoury*. *Fakhoury* corresponds letter for letter to Bahurim, without the plural termination.

NOTES OF A TOUR IN THE LEBANON.

BY E. H. PALMER, M.A.

ON Tuesday, July 19th, 1870, we left Damascus, and passing out of the city by the west gate enjoyed the beautiful view from the little *weli*-called Cubbet es Siyár; a rather uninteresting ride past the village of Dammár (the residence of the celebrated 'Abd-el-Cader), and down Wády Bassíni, brought us at last to 'Ain Fíjeh, one of the most beautiful spots in Syria. Here a broad rushing stream flows through a richly wooded valley with steep rocky sides; this is the Baradeh and 'Ain Fíjeh, its principal source flows, or rather rushes, out of a cavern westward, but immediately takes a turn and flows eastwards down the valley. Hard by the spring is a large ruined temple, probably dedicated to the nymph or goddess of the river. A short distance further on is Deir el Mokarram, a village containing some extensive ruins, and the tomb of a *weli* or saint, called Sheikh Helál, whose name, "New Moon," reminds us of that Sabæan worship which was once the established religion of the land; and a short ride past el Kufr and Ekfeir Zeit brought us at last to Suk Wády Baradeh. Here are numerous ancient tombs cut in the rock, in several of which the remains of busts and full length figures (apparently Roman from the dress) may still be traced. A path has been cut out in the solid rock, and on the walls of this are found two Latin inscriptions, one recounting the fact that the road was reconstructed by the Emperor Marcus Aurelius Antoninus, the same whose name is inscribed to record a like work at the Dog River. A fine aqueduct also runs along the face of the cliff. There is an Arabic inscription also on a rock at Suk Wády Baradeh—it is illegible, but is written in the Neskhí, and not in the Cufí character, as Porter says. The ancient name of the place was Abila; and this has given rise to the Muslim tradition that it is the spot where Abel was buried, and his tomb is still pointed out to the faithful. Up to this point the valley runs between lofty hills, the sides of which are covered with trees, and a broad river flows along its bed; after Abila, however, it widens out into a broad spoon-shaped space which might almost be called a plain; from this a splendid view of Hermon is obtained; at the right hand extremity lies the village of Zebedání completely buried in trees; and, higher up on the hill, Blúdán. Having pitched our tent at the spring of Zebedání we rode up to Blúdán and called upon Captain Burton, the learned and indefatigable English Consul, who received us very kindly and insisted

upon our stopping at his house for the night. The next morning we all rode out before breakfast to visit some caves at Zebedání; they proved to be rock-cut tombs, and over one of these were three busts in *bas-relief* and a Latin inscription, of which, however, only the first word, Deus, was legible. Captain Burton having himself made preparations for a semi-official tour in the Lebanon, arranged to accompany us, and we accordingly set out together, accompanied by some native horsemen, retainers of the Sheikh of Zebedání. Passing by the villages of Ghabteh, 'Ain el Húl, Sargháye, Yahfúfeh, and 'Ain Tardeh, we reached Nebi Shíth, the traditional burial-place of Seth, the son of Adam. The tomb is a hundred feet in length and of the ordinary Muslim pattern, set upon a raised pavement or dais with two steps. From hence we rode for a short distance past the village of Khareibeh, where we were hospitably entertained by Mr. and Mrs. Rattery, English settlers in Syria, and made for Nebi Hám. Here, according to the Mohammedan tradition, Ham, the son of Noah, is buried; being a prophet of rather questionable character, his tomb has been neglected and is now in very bad repair. On measuring his tomb we found that the father of the Canaanites was only nine feet long; the sanctity of Mohammedan prophets is always measured by their height. At this village we camped for the night, the sheikh providing us with an excellent repast. Having noticed from Sargháye an ancient fort situated on the neighbouring hills, we determined to visit it the next morning, and after a tedious climb succeeded in reaching the spot. It is called Casr el Benát, and lies due south of the cedars of Lebanon, occupying a commanding situation between two valleys. At the bottom of the hill on which it stands runs Wády Márabún, and close by is the village of the same name. The aneroid on the fort read 24° 42' with the thermometer at 77° Fahr.

About mid-day we returned to camp, and having had lunch and a short siesta, started for Baalbekk, which we reached at about five o'clock, having emerged upon the plain by a valley called Wady Esbát. Najib Bey, the governor of Baalbekk, a friend of Captain Burton's, here came out to meet him. At Nebí Hám we had been joined by Mr. Barker, engineer to the Wálí, who accompanied us here to ascertain if it were possible to carry out a project of Captain Burton's, namely, the demolition of a wall which hides the fine proportions of the Temple of Jupiter, as well as the removal of some unsightly stones on the top of one of the beautiful cornices of the same building. These had both been raised by Fakhr en dín Ma'án, the celebrated Druze chieftain, who had turned the place into a fort. Baalbekk is entered by one of the underground passages which form part of the substructures on which the platform of the great temple is raised. In these the lower courses of masonry are composed of huge stones, and apparently belong to the Phœnician period, while the upper part is late Roman. In the morning we went round to look at the ruins and get a general idea of them as a whole. We first inspected the famous great stones; they are

of immense size, being at least 60 or 70 feet long, and were placed by the Phœnicians apparently as the beginning of a temple, the design of which was never completed. The late Greek architects have used them as the foundation of their larger temple, that now known as the Temple of the Sun. On one very large stone beneath an ancient window I noticed the Phœnician letter *aleph*.

The town of Baalbekk is of considerable extent, and the water supply large; the principal spring is at Rás el 'Aín, situated just outside the town to the east. The position of the town on the edge of the fertile plain of Buka'a is one of the finest in Syria, and were commercial facilities extended to the neighbourhood by the opening of the long talked of Euphrates railway, Baalbekk would undoubtedly soon regain its ancient prosperity and importance. Our tents were pitched in the centre of the ruins, or rather of the courtyard of the larger temple.

The temple of Jupiter is in beautiful preservation, though many of the columns have been overthrown and broken by earthquakes. The ceiling of the outer colonnade is magnificent, being formed of huge blocks of stone, on which are carved elaborate patterns consisting of Solomon's seals and triangles interwoven one in the other; in the centre of each of these patterns is a large bust, smaller ones are placed round it, and intricate foliage fills the intermediate spaces. The whole effect is fine, though the intercolumniation is in rather bad taste, the pillars being placed only 9 feet apart while their diameter is 6 feet, whereas the canon of architecture decides that one and a half diameter is the least allowable distance. All the work, though very elaborate, is debased Roman. In the courtyard, where our tents were pitched, the walls are covered with niches in which statues formerly stood, these are called by the Mohammedans *mihárb*, and are evidently the models from which the latter took the form of their *mihráb* or prayer niche. The entrance to the Temple of Jupiter has been profusely ornamented; on one side is seen a *bas-relief* of a winged figure standing by an altar, to which a bull and sheep are being led for sacrifice. The key-stone of the gateway has partially dropped through; it has on it a *bas-relief* of an eagle with a winged figure on one side trailing a garland of flowers and fruit, the other side is obliterated. Beneath the temple is a vaulted chamber where "the French" are said to have discovered some treasure, an iron box full of coins.

Many of the carvings are as fresh as though they had been done but yesterday; one of them, a fallen capital about 13 feet square, shows the enormous scale on which the work was executed. Most of the columns are made of limestone, but there are also several composed of a coarse hard granite. In the centre of the courtyard are the foundations of a large building, and to the south is a large hexagonal court, and beyond that an esplanade, now, however, blocked up with modern walls. Up this the great staircase from the east appears to have led. At each end of the esplanade is a tower.

The entrance (for horses) to the building is through the arched tunnel

before spoken of; on the roof of this is an inscription. Some busts and a figure of Ashtaroth, with the crescent moon on her head, also adorn the ceiling. Another cross tunnel leads to a parallel one, at the east end of which is an inscription on the ceiling similar to that just described. At the north-west corner of the cross tunnel there are traces of what may have been a Phœnician inscription, but it is now so effaced as to be quite illegible. Between the two temples the remains of a covered passage may also be discerned. On the side of the tunnel to the south, are several chambers and an entrance, now walled up; on the outside of this two square pillars. We lunched in the portico of the Temple of Jupiter, and in the afternoon Mrs. Burton received a visit from some native ladies.

After this we paid a visit to the governor, Najíb Bey (a very intelligent and agreeable Kurdish gentlemen), to Habíb Effendi, Asád Effendi Mutrán, Rafá'í Effendi Mutrán, some Maronite priests, and Ibrahim Effendi Jubbúr. All these, the gentry of Baalbekk, seemed to be extremely well off, their houses being well appointed, and an air of substantial comfort reigning throughout them. The Syrians, indeed, are a wealthy people; for instance, at Sargháye, where we had lunched a few days previously, the sheikh, a petty village chief, had been able to borrow the sum of 4000 napoleons to lay out in cultivating his fields. So many visits all at once entailed an amount of sweetmeats, sherbet, coffee, and narghilehs, which threatened entirely and for ever to ruin our digestion.

In the morning we walked up the hill to the south-east, and visited the ruined tomb or mosque of sheikh 'Abdallah, near which is the Cubbet Suleimán. From that we descended to the quarry in which is the enormous stone called the Hajjar el Hebba, or Pregnant stone, an immense block designed for the substructures of the neighbouring temple, but never removed from the quarry; it measures 73ft. in length. The upper part and sides have been dressed, but the bottom still adheres to the living rock. It seems impossible that it should have ever been contemplated to move such an enormous mass, but some of those actually built into the old wall of the Temple of the Sun are even larger. We next came down into the plain itself, visiting the Cubbet Már Eliás, a wall formed of huge pieces of granite columns, taken from some earlier building. Returning to the ruins we lunched in the old fort of Fakhr ed dín Ma'án, and later in the day went out into the town. Amongst the objects of interest which we visited were, first, the old mosque, where are some fine ruined granite columns and one piece of porphyry, which (although the natives declare that it comes from Egypt) Captain Burton has discovered on the French road near Sahl el Jedeideh. Secondly, we inspected a large female figure sculptured in marble, seated in a chair, with a sphynx on her left hand—the proportions and execution of this figure are decidedly bad. Thirdly, we proceeded to the little temple called by the natives El Cadíseh Barbára, Sta. Barbára; the interior is circular in shape and the work very pretty,

though debased Roman in style. In the evening we dined with the governor, Najib Bey, who gave us a capital dinner, consisting of about thirty courses. The next day we started off at 5.30 a.m., and after two-and-a-half hours' walking reached the 'Ain el Baradeh, which is the highest source of the Litání; it forms a pleasant pool at the foot of a mound called Tell el Baradah, the earth of which has evidently been the site of an ancient village. At this point is the watershed of the Buka'a; the 'Ain el Baradeh, flowing down to the Litání southwards, while another fountain about a mile distant flows down to the 'Así. The turf above the 'Ain Baradeh is called Marjat es Sahan, and immediately above this is the Marj Baradah, in which is the Neb'a N'aaneh, a spring which flows down into the Litání. Here we found a large encampment of Turkomans, consisting of fifty or sixty tents; they are a well-to-do tribe, and are much better dressed than other nomad peoples. The women especially are distinguished from Bedawín females by wearing trowsers and red robes. Just before coming upon them we passed an encampment of the Wuled Abu 'Eid Arabs, and a little village called Hosh Baradeh. The second of the two springs mentioned above, viz., that of the 'Así, is called Neb'a el 'Elleh. In front of it is a Tell called Mugharr Saideh, and further to the left another called Tell el Jab'a. The mountain at the foot of Lebanon, and just above the Neb'a el 'Elleh, is named Sha'arat Baalbekk. We returned home across the plain, taking, however, a more northerly course, and passed upon our way Neb'a Hosh ed Deheb, Neba el Caddús (the largest of the springs), all of which flow into the 'Así. We re-entered Baalbekk by the old wall of the town near the Cadíseh (St.) Barbara; behind this is a ruined mosque called Jam'í 'es Sághah, "The Silver-smith's Mosque;" the earth here is like that of the part of Palmyra, where the metal worker's quarter is said to have stood—whence the name of the mosque. We ourselves found several pieces of slag on the spot. Passing through the town we came to the Rás el 'Ain, the great spring which feeds the water of Baalbekk. The spring is deliciously cool and clear, and in the centre of the pool which it forms is a large stone, a broken column with a capital. Beside the pool stands a mosque now in ruins, which an inscription tells us was built by order of the then governor by a Greek architect in the year 670 A.H. Above the pool is a square building called Cubbet es Sath, and another Cubbeh, above the town, immediately behind the governor's house, is called Cubbet el Amjad. The latter is said to be the tomb of El Amjed, son of the celebrated El Melek ed Dháhir. From this point the large extent of ground occupied by the old town of Baalbekk is plainly distinguishable. The old walls may still be traced, and two of the gates, the Buwábet Hums and Buwábet Makneh, still remain. Apropos of this I may mention that gates of Eastern towns are almost invariably named from the first large or important town in the direction of which they face. Rising long before sunrise on the following morning we set off and rode up the hill to the fountain called 'Ain Lujúj, keeping beside

the rock-hewn aqueduct which is said to supply every alternate five days Baalbekk and Nahleh; the spring is situated high up the valley, and the water issues from a small vaulted tunnel. About twenty-five yards from this is the mouth of a well communicating with the tunnel, and an old Syrian who accompanied us declared that he had been all along it till he reached a flight of steps, down which the water passed through an iron door, too narrow, however, for him to enter. On the north side of the wády are traces of a ruined aqueduct, leading directly from the spring. Descending the valley on our return we rode across the Buk'aa to visit a column which stands in the centre of the plain. It is a Roman memorial column, and is now called Camú' 'Aiyád, from the name 'Eiyád, of the owner of the adjacent fields. It is a solitary column, made of limestone, and about 50ft. high, with a capital and a pedestal of four steps. About 20ft. up on the north-east side there has been an inscription, but the tablet is now gone. From this point we rode into 'Ain Lebweh, a large and abundant spring, so embanked as to flow out into four channels on different levels. That to the east is said to supply Tadmor, and it really does go as far as El Ká'ah, a village some thirteen or fourteen miles distant, where all the water is made use of for purposes of irrigation. At 3 o'clock p.m. we reached the village of Lebweh, passing Makneh and Yuhnin on the night; the latter is the residence of Husein Za'ib, sheikh of the Mutáweleh; on the left we passed two other villages, the lower named Sh'at and the upper Nebhá. At Lebweh we stopped to lunch, and after a short siesta rode on past El 'Ain and Fíkah to Rás Baalbekk, a village said to be the most beautiful in Syria, but which is really only a patch of gardens at the foot of bleak barren hills situated on the edge of an almost desert plain. Our ride was altogether about thirty-six miles.

Leaving our camp at Er Rás the next morning, we made an excursion to 'Ain Zerka, the great source of the 'Ásí. The valley down which this river flows is called, between Lebweh and 'Ain Zerka, El Majerr, after which point it takes the name of 'Ásí. Starting at 5.40 a.m. we rode over the plain, and reached 'Ain Zerka in two hours. It is a very pretty spring, overhung with plane trees, from which depend graceful festoons of wild vine. About 200 yards below it is a second and more copious spring, the Neb'a 'Ásí itself; and the Orontes, which above the Zerka was only a trickling stream not a foot deep, now rushes on a swollen and impetuous river, 70ft. or more in width, and from 3 to 6ft. deep. The valley here is very deep; on the eastern side the rocks are conglomerate limestone, but on the western bank there is a lower stratum of sandstone. Although the river is thickly lined with trees, the valley is so deep that standing a little distance off upon the plain above, one might fail to notice its existence. High up in the rocks, about 300 yards on the right bank of the valley below the Neb'a 'Ásí on the eastern bank of the wády, is the rock-hewn convent of Már Marún, the founder of the Syrian Christian sect of the Maronites. It is a picturesque place, entirely excavated in the living rock, and faced with masonry in

which are loopholes for the defence of the convent. The entry is into a small chamber half cut in the rock, then we pass along a passage formed by a wall of masonry built upon a ledge of rock facing south. In the face of the cliff behind this wall are niches cut in the stone. We next cross by a bridge of earth and boughs (constructed by the Arabs, who still make use of the place) into the interior of the excavation, and find it to consist of three large chambers and one small one on the ground floor. The innermost of these has evidently served for the church. The first floor is reached by a staircase hewn in the live rock, and contains only one room; the second storey can only be gained by a ladder through a circular hole in the roof of the first floor at the head of the staircase. The convent is in the lower part of a steep cliff about 150ft. above the bed of the Orontes. Returning to 'Ain Zerka, we breakfasted and rode off to the Camúá Hirmil, a singular isolated monument on an elevated ridge, commanding an extensive view of the neighbouring plain. It is a square monument consisting of three storeys, the upper one pyramidal in shape, the second a square with a pilaster at each corner, and two on each face; the lower one is also square, with a pilaster at each corner, and the whole rests on five steps, two of limestone, and the other three of black basalt, which here crops out. The masonry is solid, as can be seen on the south-west side where the face has broken away. On the faces of the lower storey are rude bas-reliefs, representing animals, and weapons of the chase, bows, arrows, hunting-knives, quivers, and the like. The north-west has two bears; the north-east two stags, one standing and the other couchant and wounded; the south-east two dogs and a wild boar; and on the south-west (the broken) side are the remains of what was apparently the figure of a gazelle pursued by a dog.

The monument probably marks the site of the ancient Paradisus. This word signifies "a hunting park," and the nature of the sculptures, as well as the correspondence of the situation with the topographical notices of that locality found in ancient authors, points almost with certainty to this conclusion.

We next rode over the plain to the village of El Ká'ah, where there is a fort built by Fakhr Eddín Ma'án, as a half-way station between Baalbekk and Hums (the ancient Emesa). After a light meal with the sheikh of the village, we returned to Rás Baalbekk, which we reached about 5 p.m. after a ride of over twenty-five miles, and having arrived in camp we proceeded to inspect the ruins existing in the neighbourhood. On a hill to the north-east of the town is a ruined church called Der Már Túma, "St. Thomas' Convent," and below this, in the bed of the wády, is another convent dedicated to St. John, the only present denizen of which is a single monk, who remains there in order to keep up the territorial rights of his fraternity. In the precipitous cliffs at the head of the wády are some caves which once formed part of the convent of Már Kúlia.

Close by the town, and also situated on the bed of the wády, are some

traces of older buildings, viz., the convent of Mar Sim'án, the foundations of a large Byzantine church, with three apses, and to the north-west of the town the convent of St. John. The ancient name of Rás Baálbekk, according to the Arabs, was Catíneh; it is called Rás Baálbekk because the hills on which it stands project like a headland (Rás) into the Buka'ah. The ruins of the old town lie to the south-west of the city, amongst the vineyards and trees.

The housetops here, as in many other Syrian villages, are covered with compressed dung arranged in square or round enclosures; these are used as sleeping-places (!) in summer, and as fuel in winter, wood being very scarce in the country.

Striking across the plain in a north-westerly direction on the following morning, we came, after an hour's ride, to the foot of the moraine which leads up into Wády Fára. This is a winding, thickly-wooded valley filled with *butmeh*, wild pear, *sindián*, hawthorn, juniper, and arbutus trees; it flows down from the sub-range of es-Sha'areh at the foot of Lebanon. On our way we passed a furnace for making pitch, which is obtained from the *butmeh* or terebinth, just alluded to. For three hours we continued to ascend this valley, and at the expiration of that time reached the uplands—a valley dividing es-Sha'areh from the Lebanon proper. In the centre of this valley is a spring called 'Ayún Urghush, which we reached in another hour, and where we stopped to breakfast. The waters of this spring, after flowing for a short distance, sink into the ground and are lost to sight. We found the same to be the case, not only with all the other springs on the mountain, but with almost every hollow where the snow collects, and this fact may account for the immense force with which the waters rush out in the springs at the foot of the range. Crossing over the watershed into Wády Nussúr, amongst rugged limestone *débris*, we arrived after two hours at 'Ain Atá, a little collection of mud hovels, situated at the point where the wády first begins to widen out and present any appearance of fertility, for the intermediate distance had been over ground rough and barren in the extreme. The stream which runs along the wády is fringed with drift-wood, showing the force with which the winter torrents rush along its bed. Some of the Maronite inhabitants here came up to welcome Captain Burton as the French consul, and began to deliver an address replete with fulsome praise to the French and depreciation of the English. On being warned, however, of their mistake, they as suddenly veered round, and said they had tried the French as allies, but finding them wanting, had adopted the English as their only friends! We encamped beneath some fine walnut trees on the side of the valley opposite to 'Ain Atá, and near a rapid stream. The waters of Wády Nussúr flow southward into the Birket Yamúneh, a small lake which we could just see in the distance.

The next day was devoted to the exploration of the summit of Lebanon, for which the unusual drought that had prevailed during the past year, and the lateness of the season, afforded us unusual advantages.

In the spring and winter, when travellers usually visit the neighbourhood, the mountain is covered with snow, and the passes scarcely practicable. The summit is rarely, if ever visited. I do not suppose that even in the worst season the summit of Lebanon would present any formidable difficulties to an Alpine mountaineer, but it must be remembered that the Syrian traveller carries his hotel upon his mules' backs, and is therefore compelled to regulate his marches by the endurance of his animals and guides. We started at 5.30 a.m. and reached the top of the pass in an hour and a half. The view from this was very fine, as it comprised on the east the greater part of the Buka'a, bounded only by the range of Jebel Sherkiyeh (Anti-Lebanon) and Jebel es Sheikh; to the south-west were the mountains of Sunin, the lower portion of the Lebanon range, with the Birket Yamúneh lying between it and the ridge on where we stood. To the north rose the lofty snow-capped peaks, the ascent of which was to form our day's work, and on the west opened out an entirely new prospect—the steep descent into Wády el Cadíseh, the little patch of cedars on the mountain side, the rugged steep-banked Wády Cadíseh itself, and the coast line with the sea stretching out for miles and miles beyond. On the very surface of the sea innumerable clouds appeared to rest, invisible from below, but gradually rising throughout the day until they ultimately covered the mountain tops and enveloped them in mist. This side of the mountain, viz., that in which the cedars lie, forms a huge amphitheatre or basin, which, although the most decided and remarkable feature in the landscape, has been entirely neglected by cartographers, and even unnoticed by the surveying party sent out here by the French government. The Lebanon proper consists of five peaks, which we visited one after the other, ascertaining the comparative heights with the aneroid. The walking was very severe, lying all the way over deep valleys filled with snow.

Descending by a steep zigzag path to the cedars, we pitched our camp and proceeded to examine the sacred and renowned grove, and could not repress a feeling of disappointment at its small extent, and the insignificant appearance of the trees. They consist of a little clump of trees of comparatively modern growth, not more than nine of them showing any indications of a respectable antiquity, and covering only about three acres of ground. They stand on a ridge consisting of five mounds and two spurs running nearly east and west, as in the accompanying plan.

The whole number of trees we estimated at about 355; their size has also been grossly exaggerated, none of them being over 80ft. high. The ground is covered with *débris* of cedar and white limestone, and in the centre of the clump is a hideous little building, a Maronite chapel, the appointments of which are painfully poverty-stricken and inadequate. The trees have been lopped and otherwise maltreated, especially by the irrepressible tourist, who has been at infinite pains to cut his name on every available trunk. One tree, rather a large one,

has a hole in it where a branch had broken away, and this has been enlarged into a chamber. They are scrubby scanty specimens, and not half so fine as may be seen in many an English park.

In the afternoon we walked down towards Wády Cadíseh to Neb'a Már Sim'án, a gorgeous fountain situated about an hour and a half from the cedars, where the water streams out in a perfect torrent on the north side of the valley, and flows down to the village of B'sherreh. On our way we passed other springs, 'Ain es Siyár, Neb'a en Nebát and Neb'a Harfúsh. The view of Wády Cadíseh, on emerging from the cedars, was the finest we had seen in Syria; the deep-cut ravine, the huge regular-shaped amphitheatre, a tall saddle-backed hill called Saiyidat el Hosan cutting the horizon line towards the sea, the fertile hill sides, the picturesque mountain outlines, and above all the soft Alpine colouring, deep green and softest blue, all this was an agreeable change from the monotonous character of the scenery through which we had lately passed.

At the cedars we took leave of our kind travelling companions, who were going to visit the Maronite patriarch at Kanabín on their road to Jebel Sunín, and keeping along the slope of the mountains to the north of Wády Cadíseh, reached Ehden in two and a half hours by an exceedingly rough and difficult road. The country through which we passed was excessively fertile, the hill sides being covered with cultivated terraces, and yielding abundant crops of corn, maize, potatoes, *turmus*, &c. Near Ehden also are large plantations of mulberry trees, for feeding silk worms; the cultivation of which forms one of the staple commodities of the country on the western slopes of the Lebanon. It was a market day when we arrived, and we found the town crowded with buyers and sellers, every one dressed in their gayest attire. The sight was very picturesque, the men in red embroidered 'abbas or gay jackets, the women wearing gay muslins and cottons and enormous trousers, the married females wearing a kind of silver saucepan on their heads and an extensive turban. There is a large convent here not yet finished, and dedicated to Már Jirjis. On the south side of the valley we passed the villages of Haddat, Jesúreh, and Keifeirat Ghúb. At Ehden we breakfasted in the open street on grapes, figs, and bread.

Continuing our journey in a north-westerly direction, we reached Carn Caitú, a hill which forms the last of the ridge overlooking the coast plain. On the north-east of this hill we found a large sarcophagus cut out of a single isolated block of stone; it is shaped like a gondola, and measures 20ft. in length, by 7ft. in breadth. It is called Námús el 'Abd. The earth has been partially removed from it, the natives having, a few years ago, dug there in search of treasure. About twenty-five yards to the north of this are the ruins of an ancient temple about 20ft. by 18ft., standing on a levelled platform at the edge of a precipitous cliff. The green wooded hill immediately to the north of this is called El 'Ajabíyeh. A very steep and awkward road, called 'Akabat Hairúní, led us down to the edge of the hills on the coast

south of Tripoli. The edge of the plain was reached in two hours, and in three hours more we came to Zaghartah, where we encamped. The country is extremely fertile, abounding in olives and mulberry trees. On our way we passed the villages of Farfatah, Dárayah, and Farhátah, all of which were quite deserted, the inhabitants having gone up into the mountains for the summer. We pitched our tent by the side of the river which runs by Zaghartah, after having been eight and a half hours on the road.

From Zaghartah we reached Tripoli by an excellent road in about an hour, passing a village called Almah on our way. The town is picturesque, but extremely dirty and uncomfortable, consisting of narrow gloomy arched streets knee-deep in filth and decayed vegetables. It is situated at the foot of the plateau which here falls in a step of from 200ft. to 300ft. on to the shore plain. A fort at the east of the town commands it, but is itself overlooked from the hill above. The Mína, or port, is some three miles distant on the coast, and the intervening ground is thickly covered with trees. It is a hot unhealthy place, and the population chiefly Muslim. In two and a half hours from Tripoli we reached Cal'at el Mesáliheh, passing the village of Ameyún and two little wayside inns or stores called Dúkán 'Asfúr and Dúkán el Hirreh. Next crossing a promontory called Rás Núríyeh, we passed by a steep winding road amongst rather picturesque hills into Wády Emseilihah, where there is a picturesque old fort perched upon a tall isolated rock in the centre of the valley. An hour and three quarters from Tripoli we came upon the remains of a small temple and other adjacent ruins by the sea shore. In three hours from Rás Núríyeh we reached Batrún, a well-to-do, neat, little Christian town, where we rested for the night.

Outside the town are several small smelting furnaces, and immediately below the surface of the ground we could detect a rich vein of iron ore which is worked to a small extent by the inhabitants of the place. Diving for sponges is one of the chief occupations of the poorer peasants in this part of the coast, and we saw many men engaged in their dangerous pursuit as we rode along.

Three and a half hours from Batrún brought us to Jebeil, a compact little walled town noted for producing the best tobacco (*Jebeili*) in Syria. This place is the ancient Byblus; numerous columns of grey granite and sarcophagi were lying about in the neighbourhood. Here we stopped to lunch off some magnificent grapes, which we bought for a farthing a pound.

In an hour and a half we reached Nahr Ibrahim, anciently called the Adonis, a considerable stream, the mouth of which is closed in by a large bar of shingle. Immediately past it is the small village of Dákaibeh, and two and a half hours further on is situated, in a very pretty bay, the mercantile and maritime village of Júnieh. On the hills above (the slopes of Jebel Kesrwán) are large mulberry plantations, villas, silkworm manufactories, &c., all of which give an air of

life and civilisation to the place. The luxuriant vegetation coming down to the edge of the sea, the general richness of the soil, and the softness of the colouring, reminded us forcibly of southern Italy. In an hour and a quarter more we passed over a space of thickly wooded land, and came to the Nahr el Kalb, or Dog River, where we bathed and encamped.

After examining the famous tablets, all of which, except the Latin and part of the Assyrian one, are too much effaced to be legible, we walked up the valley for some distance, but could discover no traces of an ancient road continued along the rocks. Indeed such a work would have been unnecessary, as the wády widens out, and is now practicable for mules. Near the bridge on the south side of the stream is a long Arabic inscription on the flat face of the rock, 15ft. long by 5ft. deep; it is much effaced, but the style of the writing, which is beautifully executed, greatly resembles that of the period of the famous monarch El Melik ed Dháhir.

On the north side of the valley is a fine old aqueduct, built on large arches. A short and pretty ride along the shore brought us at last to Beyrout, where we were soon installed in Bassoul's comfortable hotel.

NOTE.—The Map of Moab published with this number of the *Quarterly Statement*, completes the geographical work of Mr. Palmer, the larger portion of which was embodied in the map of the Tih Desert. Some of the work of Captain Warren is also incorporated in it. Like its predecessor, this map is only a route-sketch, the route of the travellers being marked throughout. In the next number of the *Quarterly Statement*, Mr. Palmer proposes to give transcriptions of all the inscriptions in the Haram es Sherif, together with their translation, and a complete account of the history of the Mosque, drawn from Arabic sources. A notice of some other inscriptions in Jerusalem, and notes of a journey through Palestine, will be included in the same paper.

NOTE ON THE METEOROLOGICAL OBSERVATIONS

PUBLISHED IN THE "QUARTERLY STATEMENT" (FIRST SERIES,
Nos. III., IV., AND V.)

A WRITER, M. Alfred Gautier (Professor of Astronomy), in the "Archives des Sciences de la Bibliothèque Universelle," after quoting the results arrived at by Mr. Glaisher and published as above, gives the following comparative table of mean temperatures :—

	Mean of Year.	Mean of Winter.	Mean of Summer.	Latitude.	
	Degrees.	Degrees.	Degrees.	Deg.	Min.
Bagdad	23·2	9·8	34	33	21
Cairo	22·3	14·7	29·5	30	2
Tunis	20·4	13·2	28·3	36	48
Catania	19·6	12·6	26·9	37	30
Algiers	17·9	12·4	23·6	36	47
Constantine	17·2	10·2	26·6	36	20
Barcelona	17·2	10·1	25·0	41	23
Jerusalem	17·0	9·8	23·3	31	47

Or reduced to Fahrenheit—

	Mean of Year.			Mean of Winter.			Mean of Summer.		
	Deg.	Min.	Sec.	Deg.	Min.	Sec.	Deg.	Min.	Sec.
Bagdad	66	20	9·6	46	30	14·4	82	19	12
Cairo	65	0	14·4	53	45	21·6	75	39	36
Tunis	62	11	31·2	41	32	9·6	73	53	2·4
Catania	61	0	28·8	50	38	52·8	71	48	43·2
Algiers	58	29	31·2	50	21	7·2	66	55	40·8
Constantine	57	27	21·6	47	5	45·6	71	22	48
Barcelona	57	27	21·6	46	56	52·8	69	0	0
Jerusalem	57	2	9·6	36	30	14·4	51	41	2·4

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THE
PALESTINE EXPLORATION FUND.

PREFACE.

IN the preface to the last *Quarterly Statement* it was stated that the next expedition will leave in the autumn. The accompanying circular and map fully explain the kind of work contemplated, and the probable cost. The Committee can add nothing more to the appeal contained in this circular, but an expression of hope that a fitting response will be made to carry out an enterprise which interests not England alone, but the whole world.

Mr. Palmer continues in the present number the work he is still doing for the Fund. The paper on the buildings in the Haram area will be continued in the next *Quarterly*. He has prepared for the press a full account of his recent travels, both in Sinai (with the Sinai Survey Fund) and the Desert of the Tih, which will appear in the autumn.*

Great interest will be taken in the discovery recently made by M. Clermont-Ganneau of a tablet which belonged to Herod's Temple, warning strangers against passing the boundaries of the sacred precinct. It will be remarked that the inscription is very nearly in the words of Josephus.

The Committee cannot allow this number of the *Quarterly* to go out without expressing their deep sorrow at the recent death of one of their most valued members, Dr. Alexander Keith Johnston. No one

* "The Desert of the Exodus." Bell and Daldy.

has ever felt a warmer interest in the ways and objects of the Fund. On the last occasion when he was in the office of the Fund he was full of interest in the next expedition, and no one, as the Edinburgh subscribers know well, has exerted himself with more energy and more success for the promotion of this movement.

The General Committee has been strengthened by the addition of the following noblemen and gentlemen: the Duke of Sutherland, the Marquis of Bute, the Rev. Dr. Ginsburg, Dr. Birch, and Mr. E. H. Palmer.

In accordance with the invitation contained in the circular, the Committee beg all subscribers and intending donors to forward to the central office, or their local secretaries, lists of whom can be published in every *Quarterly*, their subscriptions for this year, before the autumn. Subscribers beginning this year are entitled to the new series of the *Quarterly* from the 1st November.

HISTORY OF THE HARAM ES SHERÍF.

COMPILED FROM THE ARABIC HISTORIANS BY E. H. PALMER, M.A.

THE history of Jerusalem, as told by Mohammedan writers, is not unknown to European scholars; but the various notices and extracts which have hitherto appeared are so scattered and difficult of access as to be of little use to the general reader.

"The History of the Temple of Jerusalem," by Jelál ed dín es Siyútí, was translated by the Rev. J. Reynolds, for the Oriental Translation Fund, and published in 1836; but this work, besides being too literal and prolix, contains such grave errors of translation, and such perversions of the original meaning, that it is absolutely worthless as an authority. The work of Kemál ed dín ibn Abi Sheríf has been edited with a Latin translation and notes by Paul Leming (Hauniae MDCCCXVII.), but this is little better than the last, being apparently an early attempt by an indifferent Arabic scholar.

In the following article I have endeavoured to give a concise but complete abstract of the history of Jerusalem from Muslim sources, especially of that part which relates to the Haram es Sheríf, and the building and successive restorations of the two mosques Cubbet es Sakhráh and El Aksa. Having copied every inscription extant in the Haram, I am enabled to illustrate the accounts given by the Mohammedan

authors with the contemporary records left by the different builders or restorers.

I have divided the article into two parts; the first containing the history, the second the Muslim traditions, of the various sacred places in and about Jerusalem.

As the basis of my account, I have taken the well-known work of Mejír ed dín, and have collated it with those of Es Siyútí, Kemál ed dín, Ibn 'Asákir, and others, introducing the various versions wherever accounts differed. I have not thought it necessary to quote the literary or traditional authority for each story, as the Mohammedan names, being entirely unknown to the greater number of English readers, could add but little weight to the testimony. Suffice it to say that (with the exception of a few incidental comments of my own) for every sentence in the text of the following pages, there exists a corresponding sentence in Arabic from one or other of the books used, and these I have translated, to the best of my ability, honestly and correctly.

§ 1.—CONQUEST OF THE CITY BY THE CALIPH 'OMAR.

On the death of Mohammed, Abu Bekr es Sadík was appointed his caliph (Khalifeh or vice-regent), and he was in turn succeeded by 'Omar el Khattáb as temporal and spiritual head of the Mussulman community.

In the 15th year of the Hijrah (A.D. 636) Abu 'Obeidah Ibn el Jerráb, general of the Mussulman army, after a series of brilliant victories in Syria and Palestine, turned his attention to Jerusalem, and his first step was to write a letter to the Christian patriarch of the Holy City, requiring him and all the inhabitants either to embrace the Mohammedan religion or to pay the usual tribute exacted from unbelievers. "If you refuse," said he, "you will have to contend with people who love the taste of death more than you love wine and swine's flesh, and rest assured that I will come up against you, and will not depart until I have slain all the able-bodied men among you, and carried off your women and children captive."

To this message a decisive refusal was returned, and 'Omar, in accordance with his threat, marched upon Jerusalem and besieged the town. The Christians, after several unsuccessful sallies, finding themselves reduced to great straits by the protracted siege, made overtures for capitulation, but refused to treat with any but the Caliph himself. Having exacted a solemn oath from them that they would hold to the proposed condition in case of the Caliph's arrival, the general sent a message to 'Omar, inviting him to leave Medína, and receive in person the capitulation of the town. The messengers from Abu 'Obeidah's camp were accompanied by some representatives of the Christian community, and the latter were much astonished at the stern simplicity and comparative retirement in which the Caliph was living, and which but ill accorded with their previously conceived ideas of the great monarch who had conquered the whole of Arabia and Syria, and had

made the Emperors of Greece and Persia to tremble on their thrones. The meeting between the Caliph and his victorious general was still further calculated to impress them. 'Omar was mounted on a camel, and attired in a simple Bedawí costume,—a sheepskin cloak, and coarse cotton shirt; Abu 'Obeidah was mounted on a small she-camel, an 'abba folded over the saddle, and a rude halter of twisted hair forming her only trappings; he wore his armour, and carried his bow slung across his shoulder. Abu 'Obeidah, dismounting from his beast, approached the Caliph in a respectful attitude; but the latter dismounting almost at the same moment, stooped to kiss his general's feet, whereupon there ensued a contest of humility which was only put an end to by the two great men mutually consenting to embrace after the fashion of Arab sheikhs who meet upon equal terms. A story of 'Omar's paying a man for some grapes which his followers had heedlessly plucked as they came in from their thirsty ride, and several other instances of his great integrity and unassuming manner, are related by the Arab historians. No doubt these incidents were to some extent the offspring of "the pride that apes humility;" yet the Muslim sovereign really seems to have possessed some good and amiable qualities.

'Omar pitched his camp upon the Mount of Olives, where he was immediately visited by a messenger from the Patriarch of Jerusalem, who sent to welcome him and renew the offers of capitulation. The armistice previously granted having been confirmed, and the personal safety of the Patriarch and his immediate followers being guaranteed, that dignitary set out with a large company of attendants for the Caliph's tent, and proceeded to confer with him personally and to draw up the articles of peace. The terms, exacted from Jerusalem in common with the other conquered cities, in spite of 'Omar's boasted generosity and equity, were extremely hard and humiliating for the Christians. They ran as follows :—

The Christians shall enjoy security both of person and property, the safety of their churches shall be, moreover, guaranteed, and no interference is to be permitted on the part of the Mohammedans with any of their religious exercises, houses, or institutions; provided only that such churches or religious institutions shall be open night and day to the inspection of the Muslim authorities. All strangers and others are to be permitted to leave the town if they think fit, but any one electing to remain shall be subject to the herein-mentioned stipulations. No payment shall be exacted from any one until after the gathering in of his harvest. Mohammedans are to be treated everywhere with the greatest respect; the Christians must extend to them the rights of hospitality, rise to receive them, and accord them the first place of honour in their assemblies. The Christians are to build no new churches, convents, or other religious edifices, either within or without the city, or in any other part of the Muslim territory; they shall not teach their children the Coran, but no one shall be prevented from embracing the Moham-

medan religion. No public exhibition of any kind of the Christian religion is to be permitted. They shall not in any way imitate the Muslims either in dress or behaviour, nor make use of their language in writing or engraving, nor adopt Muslim names or appellations. They shall not carry arms, nor ride astride their animals, nor wear or publicly exhibit the sign of the cross. They shall not make use of bells; nor strike the *nákús* (wooden gong) except with a suppressed sound; nor place their lamps in public places, nor raise their voices in lamentation for the dead. They shall shave the front part of the head and gird up their dress, and, lastly, they shall never intrude into any Muslim's house on any pretext whatever. To these conditions 'Omar added the following clause to be accepted by the Christians: That no Christian should strike a Muslim, and that if any single one of the previous stipulations were not complied with they should confess that their lives were justly forfeit, and that they were deserving of the punishment inflicted upon rebellious subjects.

When these terms had been agreed upon by both sides and the treaty signed and sealed, 'Omar requested the Patriarch to lead him to the Mosque (*Masjid*, or "place of adoration") of David. The Patriarch acceding to this request, 'Omar, accompanied by 4,000 attendants, was conducted by him into the Holy City. They first proceeded to the church of the Holy Sepulchre,* which the Patriarch pointed out as the site of David's temple. "Thou liest," said 'Omar, curtly. They next visited the church called Sion, which the Patriarch again pointed out as the Mosque of David, and again 'Omar gave him the lie. After this they proceeded to the *Masjid of Jerusalem*, and halted at the gate, which is called in the present day Báb Mohammed. Now the dung in the mosque had settled on the steps of the door in such quantities that it came out into the street in which the door is situated, and nearly clog to the roofed archway of the street.† Hereupon the Patriarch

* In the original *El Kamámah*, "dung;" this is explained a little further on to be a designed corruption of the word *Kaiyámah*, "Anastasis." These words are at the present day applied by the Muslim and Christian population respectively to the church of the Holy Sepulchre.

† This important passage has been but imperfectly understood; Reynolds, by his translation, makes absolute nonsense of it, rendering the words:—

"So he went with him to the *Mosques* of the Holy City, until he came at last near unto a gate, called the gate of Mohammed; and he drew down all the filth that was on the declivity of the steps of the gate, until he came to a narrow passage, and he went down a number of steps until he almost hung upon the top of the interior or upper surface. . . . So Omar went upon his hands, and we went upon our hands and knees after him until we came to the central sewer. And we stood here upright."

The word here rendered "mosques" is in the singular, not in the plural, and plainly refers to a spot well known as "the Temple (*Masjid*) of Jerusalem." The word rendered "he drew down" is passive, and refers to the dirt which had collected

said, "We shall never be able to enter unless we crawl upon our hands and knees." "Well," replied the Caliph, "on our hands and knees be it." So the Patriarch led the way, followed by 'Omar and the rest of the party, and they crawled along until they came out upon the courtyard of the Temple, where they could stand upright. Then 'Omar, having surveyed the place attentively for some time, suddenly exclaimed: "By Him in whose hands my soul is, this is the mosque of David, from which the prophet told us that he ascended into heaven. He gave us a circumstantial account thereof, and especially mentioned the fact that we had found upon the Sakhrah a quantity of dung which the Christians had thrown there out of spite to the children of Israel."* With these words he stooped down and began to brush off the dung with his sleeve, and his example being followed by the other Mussulmans of the party, they soon cleared all the dung away, and brought the Sakhrah to light. Having done this he forbade them to pray there until three showers of rain had fallen upon it.

Another account relates that, on conquering the city, 'Omar sent for Ka'ab and said to him, "Oh, Abu Ishák, dost thou know the site of the Sakhrah?" "Yes," replied Ka'ab, "it is distant such and such a number of cubits† from the wall which runs parallel to the Wády Jehennum; it is at the present time used for a dunghill." Digging at the spot indicated, they found the Sakhrah as Ka'ab had described. Then 'Omar asked Ka'ab where he would advise him to place the mosque, (or, as some say, "the Kiblah")? Ka'ab answered, "I should place it behind the Sakhrah, so that the two Kiblahs, namely, that of Moses and that of Mohammed, may be made identical." "Ah," said

in such quantities upon the raised platform that it ran down the steps into the street, and there made a heap high enough to reach to the arched roof of the street. Not to mention the difficulty of 4,000 men standing upright in a sewer, I may remark that the word rendered "*central sewer*" is *sahn*, "an open court," the name applied at the present day to the platform upon which the Cubbet es Sakhrah stands. Reynolds's translation would imply that the site of the Sakhrah was in a sewer below the level of the rest of the city as it then stood!

* It needed no prophetic inspiration to acquaint Mohammed with this fact. The site of the Temple was not only well known to the Christians, but was systematically defiled by them out of abhorrence for the Jews. Eutychius expressly tells us that—"when Helena, the mother of Constantine, had built churches at Jerusalem, the site of the rock and its neighbourhood had been laid waste, and so left. But the Christians heaped dirt on the rock so that there was a large dunghill over it. And so the Romans had neglected it, nor given it that honour which the Israelites had been wont to pay it, and had not built a church above it, because it had been said by our Lord Jesus Christ in the Holy Gospel, 'Behold, your house shall be left unto you desolate.'"

† Reynolds, again misunderstanding the Arabic, renders this "one cubit."

‘Omar, “thou leanest to Jewish notions, I see; the best place for the mosque is in front of it,” and he built it in front accordingly.

Another version of this conversation is, that when Ka‘ab proposed to set the mosque behind the Sakhrāh, ‘Omar reproved him, as has just been stated, for his Jewish proclivities, and added, “Nay, but we will place it in the *sadr* (‘breast or forepart’) for the prophet ordained that the Kiblah of our mosques should be in the forepart. I am not ordered,” said he, “to turn to the Sakhrāh, but to the Ka‘abah.” Afterwards, when ‘Omar had completed the conquest of Jerusalem, and cleared away the dirt from the Sakhrāh, and the Christians had entered into their engagements to pay tribute, the Muslims changed the name of the great Christian church from *Kaiyámah* (Anastasis), to *Kamámah* (dung), to remind them of their indecent treatment of the holy place, and to further glorify the Sakhrāh itself.

§ 2.—BUILDING OF THE CUBBET ES SAKHRAH, &C., BY ‘ABD EL MELIK.

In the year 66 of the Hijrah (A.D. 684), ‘Abd el Melik having succeeded his father ‘Merwān in the Caliphate, turned his attention to building the Cubbet es Sakhrāh, and constructing the Masjid el Aksa. Some time before this he had, for political reasons, forbidden people to perform the pilgrimage to Mecca, fearing that they might take the side of his rival Zobeir, who was established there; but as people were beginning to grumble at this prohibition, he conceived the plan of inducing them to make pilgrimages to Jerusalem instead, hoping in this way to quiet the public mind.

Having determined upon this course he sent circular letters to every part of his dominions, couched in the following terms:—

“‘Abd el Melik desiring to build a dome over the Holy Rock of Jerusalem, in order to shelter the Muslims from the inclemency of the weather, and, moreover, wishing to restore the Masjid, requests his subjects to acquaint him with their wishes on the matter, as he would be sorry to undertake so important a matter without consulting their opinion.”

Letters of approval and congratulation flowed in upon the Caliph from all quarters, and he accordingly assembled a number of the most skilled artisans, and set apart for the proposed work a sum of money equivalent in amount to the whole revenue of Egypt for seven years. For the safe custody of this immense treasure he built a small dome, the same which exists at the present day to the east of the Cubbet es Sakhrāh and is called Cubbet es Silsilah. This little dome he himself designed, and personally gave the architect instructions as to its minutest details. When it was finished, he was so pleased with the general effect that he ordered the architect to build the Cubbet es Sakhrāh itself on precisely the same model.

Having completed his treasure house and filled it with wealth, he

appointed Rija ibn Haiyáh el Kendí controller thereof, with Yezíd ibn Sallám, a native of Jerusalem, as his coadjutor. These two persons were to make all disbursements necessary for the works, and were enjoined to expend the entire amount upon them, regulating the outlay as occasion might require. They commenced with the erection of the Cubbeh, beginning on the east side and finishing at the west, until the whole was completed and there was nothing further left for any one to suggest. Similarly in the buildings in the fore part of the Masjid,* that is, on the south side, they worked from east to west, commencing with the wall by which is the Mehd 'Aisa (cradle of Jesus), and carrying it on to the spot now known as the Jám'í el Magháribeh.

On the completion of the work, Rijá and Yezíd addressed the following letter to 'Abd el Melik, who was then at Damascus :—

“In accordance with the orders given by the Commander of the Faithful, the building of the Dome of the Rock of Jerusalem (*Cubbeti Sakhrati Bait el Mucaddas*) and the Masjid el Aksa is now so complete that nothing more can be desired. After paying all the expenses of the building there still remains in hand a hundred thousand dinárs of the sum originally deposited with us ; this amount the Commander of the Faithful will expend in such manner as may seem good to him.”

The Caliph replied that they were at liberty to appropriate the sum to themselves in consideration of their services in superintending the financial department of the works. The two commissioners, however, declined this proposition, and again offered to place it at the Caliph's disposal, with the addition of the ornaments belonging to their women and the surplus of their own private property. 'Abd el Melik, on receipt of their answer, bade them melt up the money in question, and apply it to the ornamentation of the Cubbeh. This they accordingly did, and the effect was so magnificent that it was impossible for any one to keep his eyes fixed on the dome, owing to the quantity of gold with which it was ornamented. They then prepared covering for it of felt and leather, which they put upon it in winter time to protect it from the wind and rain and snow. Rija and Yezíd also surrounded the Sakhras itself with a latticed screen of ebony, and hung brocaded curtains behind the screen between the columns.

§ 3.—OPENING OF THE CUBBET ES SAKHRAH.

A number of attendants were employed in pounding saffron, and in making perfumed water with which to sprinkle the mosque, as well as in preparing and burning incense. Every morning also servants were sent into the Hammám Suleimán (“Solomon's bath”), to cleanse it out thoroughly. Having done this they used to go into the store-room in

* See the “Excursus on the name Masjid el Aksa” at the end of Section 5.

which the *Khalúk** was kept, and changing their clothes for fresh ones of various costly stuffs, and putting jewelled girdles round their waists, and taking the *Khalúk* in their hands, they proceeded to dab it all over the Sakhrāh as far as they could reach; and when they could not reach with their hands they washed their feet and stepped upon the Sakhrāh itself until they had dabbled it all over, and emptied the pots of *Khalúk*. Then they brought censers of gold and silver filled with 'ud (perfumed aloes wood) and other costly kinds of incense, with which they perfumed the entire place, first letting down the curtains round all the pillars, and walking round them until the incense filled the place between them and the dome, and then fastening them up again so that the incense escaped and filled the entire building, even penetrating into the neighbouring bazaar, so that any one who passed that way could smell it. After this, proclamation was made in the public market, "The Sakhrāh is now open for public worship," and people would run in such crowds to pray in there, that two *reka'as* was as much as most people could accomplish, and it was only very few who could succeed in performing four.

So strongly was the building perfumed with the incense, that one who had been into it could at once be detected by the odour, and people used to say as they sniffed it, "Ah! So-and-so has been in the Sakhrāh." So great, too, was the throng, that people could not perform their ablutions in the orthodox manner, but were obliged to content themselves with washing the soles of their feet with water, and wiping them with green sprigs of myrtle, and drying them with their pocket-handkerchiefs. The doors were all locked, and ten chamberlains posted at each door, and the mosque was only opened twice a week—namely, on Mondays and Fridays; on other days none but the attendants were allowed access to the buildings. It is said that in the days of 'Abd el Melik a precious pearl, the horn of Abraham's ram, and the crown of the Khosroes, were attached to the chain which is suspended in the centre of the dome, but when the Caliphate passed into the hands of the Beni Hášhem they removed these relics to the Kaabeh.

§ 4.—DESCRIPTION OF THE MASJID EL AKSA IN THE TIME OF 'ABD EL MELIK AND THE REIGNS IMMEDIATELY SUCCEEDING.

Ibn 'Asákir tells us that there were 6,000 planks of wood in the Masjid used for roofing and flooring, exclusive of wooden pillars. It also contained fifty doors, amongst which were:—Báb el Cortobi (the gate of the Cordovan), Báb Dáud (the gate of David), Báb Suleimán (the gate of Solomon), Báb Mohammed (the gate of Mohammed),

* A species of aromatic plant, rather larger than saffron. Reynolds translates this "which was behind," and, as usual, makes nonsense of the remainder of the passage.

Báb Hettah (the gate of Remission*), Báb et Taunah (the gate of Reconciliation), where God was reconciled to David after his sin, Báb er Rahmeh (the gate of Mercy), six gates called Abwáb al Asbát (the gates of the tribes), Báb el Walíd (the gate of Walíd), Báb el Háshimí (the gate of the Háshem Family), Báb el Khidi (the gate of St. George or Elias), and Báb es Sekínah (the gate of the Shekina). There were also 600 marble pillars; seven mihrábs (or prayer niches); 385 chains for lamps, of which 230 were in the Masjid el Aksa, and the rest in the Cubbét es Sakhráh; the accumulative length of the chains was 4,000 cubits, and their weight 43,000 *ratals* (Syrian measure). There were also 5,000 lamps, in addition to which they used to light 1,000 wax candles every Friday, and on the night of the middle of the months Rejeb, and Shaban, and Ramadhán, as well as on the nights of the two great festivals. There were fifteen domes, exclusive of the Cubbet es Sakhráh; and on the roof of the mosque were 7,700 strips of lead, and the weight of each strip was 70 Syrian ratals. This was exclusive of the lead which was upon the Cubbet es Sakhráh.

All the above work was done in the days of 'Abd el Melik ibn Merwan. The same prince appointed 300 perpetual attendants to the mosque, slaves purchased with a fifth of the revenue, and whenever one of these died there was appointed in his stead either his son, grandson, or some one of the family; the office to be hereditary so long as the generation lasted. There were four-and-twenty large cisterns in the Masjid, and four minarets, three of which last were in a line on the west side of the Masjid, and one over the Babel Esbát. There were also Jewish servants employed in the Masjid, and these were exempted on account of their services from payment of the capitation tax; originally they were ten in number, but as their families sprung up increased to twenty. Their business was to sweep out the Masjid all the year round, and to clean out the lavatories round about it. Besides these, there were ten Christian servants also attached to the place in perpetuity, and transmitting the office to their children; their business was to brush the mats and to sweep out the conduits and cisterns. A number of Jewish servants were also employed in making glass lamps, candelabras, &c. (these and their families were also exempted in perpetuity from tax, and the same privilege was accorded to those who made the lamp wicks).

The doors of the Masjid were all covered with plates of gold and silver in the time of 'Abd el Melik, but these were stripped off by Abu Jaafar el Mansur, the second caliph of the Abbaside dynasty, in A.D. 753, and melted up for coin to repair the east and west sides of the Masjid, which had fallen down in the great earthquake of 747 A.D.

When the second earthquake occurred, and threw down the parts restored by Abu Jaafar, El Mehdi, his successor, seeing that the place

* Cf. Corán, cap. ii. 55, "Enter the gate with adoration, and say 'Remission.'"

was going to ruin, and] was almost] deserted by worshippers, determined to rebuild it on a smaller scale. This he did by taking a portion both off the length and breadth. El Mehdí ascended the throne 7th October, A.D. 775.

The only inscription of 'Abd el Melik's which now remains in the mosque is the great mosaic around the colonnade in the interior; of this I shall give a particular account when speaking of Abd Allah Má'mún, by whom it was altered for the purpose of fraudulently inserting his own name.*

Abd el Melik died on the 8th Sept., A.D. 705, and was succeeded by his son El Walíd.

§ 5.—MEASUREMENT OF THE MASJID.

Ibn 'Asákir says that the length of the Masjid el Aksa was 755 cubits, and the breadth 465 cubits, the standard employed being the royal cubit.

In the *Muthír el Gharám* the author tells us that he saw on the north wall, over the door which is behind the Báb el Dowaidáriyeh, on the inside of the wall, a stone tablet, on which the length of the Masjid was recorded as 784 cubits, and its breadth 455; it did not, however, state whether the standard employed was the royal cubit, or not. The same author informs us that he himself measured the Masjid with a rope, and found that in length it was 683 cubits on the east side, and 650 on the west, and in breadth it was 438 cubits, exclusive of the breadth of the wall.

EXCURSUS ON THE NAME MASJID EL AKSA.

In order to understand the native accounts of the sacred area at Jerusalem, it is essentially necessary to keep in mind the proper application of the various names by which it is spoken of. When the Masjid el Aksa is mentioned, that name is usually supposed to refer to the well-known mosque on the south side of the Haram, but such is not really the case. The latter building is called El Jám'í el Aksa, or simply El Aksa, and the substructures are called El Aksa el Kadímeh (the ancient Aksa), while the title El Masjid el Aksa is applied to the whole sanctuary. The word *Jámi* is exactly equivalent in sense to the Greek *συναγωγή*, and is applied only to the church or building in which the worshippers congregate. *Masjid*, on the other hand, is a much more general term; it is derived from the verb *sejada* "to adore," and is applied to any spot, the sacred character of which would especially incite the visitor to an act of devotion. Our word *mosque* is a corruption of *masjid*, but it is usually misapplied, as the building is never so designated, although the whole area on which it stands may be so spoken of.

* I propose hereafter to publish a fac-simile of this inscription, showing the alteration in the mosaics, from a squeeze impression, which I obtained when working in the mosque.

The Cubbet es Sakhrāh, El Aksa, Jám'í el Magháribeh, &c., are each called a *Júmi*, but the entire Haram is a *masjid*. This will explain how it is that 'Omar, after visiting the churches of the Anastasis, Sion, &c., was taken to the "Masjid" of Jerusalem, and will account for the statement of Ibn el 'Asa'kir and others, that the Masjid el Aksa measured over 600 cubits in length—that is, the length of the whole Haram area. The name Masjid el Aksa is borrowed from the passage in the Coran (xvii. 1), when allusion is made to the pretended ascent of Mohammed into heaven from the temple of Jerusalem; "Praise be unto Him who transported His servant by night from El Masjid el Harám (*i.e.*, 'the Sacred place of Adoration' at Mecca) to El Masjid el Aksa (*i.e.*, 'the Remote place of Adoration' at Jerusalem), the precincts of which we have blessed," &c. The title *El Aksa*, "the Remote," according to the Mohammedan doctors, is applied to the temple of Jerusalem "either because of its distance from Mecca, or because it is in the centre of the earth."

The title Haram, or "sanctuary," it enjoys in common with those of Mecca, Medina, and Hebron.

(*To be continued.*)

DISCOVERY OF A TABLET FROM HEROD'S TEMPLE.*

"PERMIT me to have recourse again to the publicity of your journal in order to make known, in a few words, an important discovery which I have just made in Jerusalem. It is of one of those tablets which, in the temple reconstructed by Herod, forbade strangers, as Josephus tells us, from passing the sacred enclosure—the prohibition being written in Greek and Latin. The tablet which I have found bears the following inscription in Greek in seven lines:—

ΜΗΘΕΝΑ ΑΛΛΟΓΕΝΗ ΕΙΣΠΟΡΕΤΕΣΘΑΙ ΕΝΤΟΣ ΤΟΥ ΠΕΡΙ ΤΟ ΙΕΡΟΝ ΤΡΥ-
ΦΑΚΤΟΥ ΚΑΙ ΠΕΡΙΒΟΛΟΥ ΟΣΔ'ΑΝ ΛΗΦΘΗ ΕΑΤΤΩΙ ΑΙΤΙΟΣ ΕΣΤΑΙ ΔΙΑ
ΤΟ ΕΞΑΚΟΛΟΥΘΕΙΝ ΘΑΝΑΤΟΝ.

The characters are monumental in size, and present the appearance which one would expect in an inscription of the period.

The translation is:—

'No stranger is to enter within the balustrade (*τρυφακτος*) round the temple and enclosure. Whoever is caught will be responsible to himself for his death, which will ensue.'

The passage of Josephus to which I have made allusion, is as follows:—

'When you go through these first cloisters unto the second (court of the seven temples), there was a partition (*δρυφακτος*) made of stone all round, whose

* Reprinted, by kind permission of the Editor, from the *Athenæum*.

height was three cubits; its construction was very elegant. Upon it stood pillars at equal distances from one another, declaring the laws of purity, some in Greek, and some in Roman letters, that no "foreigner should go within that sanctuary." * *

The connection between this text and our inscription is striking. The expressions and the forms are similar: *μήδενα ἀλλόφυλον* is the exact equivalent of our *μήδενα αλλογενή*; 'the second *ἱερον*,' says Josephus, 'is surrounded by the *τρύφακτος*.' Our inscription says 'the *τρύφακτος* which is round the *ἱερον*.' The variant *τρύφακτος* is singular, and probably points to one of the faults of pronunciation in use among the Jews speaking Greek at this period. We must observe that Josephus does not speak of the tragic fate which menaced him who might violate the rule; his silence is certainly intentional.

We may boldly affirm that this Greek inscription is not only the most ancient, but also the most interesting, in all its bearings, which Jerusalem has yet produced. I cannot in this simple letter follow out all the questions which it raises; that must be the object of a special *mémoire*. I will confine myself only to remark the principal points which attach to it: the fixing of a certain palæographic scale for Greek inscriptions already discovered, or yet to be discovered in Jerusalem; the form and dimensions of the tablet, which may determine the use of the three cubit balustrade which it surmounted; appearance and workmanship of the stone, permitting us to specify technically the blocks of Herodian work, and to distinguish them from those cut at a previous date; striking confirmations of the exactness of Josephus's descriptions; authentic and contemporaneous definitions of the different parts of the temple; the *τρύφακτος* (sored of the Talmud?), the *ἱερον*, the *περιβόλη*, &c., &c. ¹

The episode in the Acts of the Apostles (xxi. v. 26, *et seq.*), throws on, as well as receives from, this precious inscription great light. Paul, after purification, presents himself in the temple; the people immediately rise against him, because certain Jews of Asia believed that Paul had introduced into the temple a Gentile, Trophimus of Ephesus, and had thus polluted the sacred place. They are about to put him to death when the Tribune commanding at Fort Antonia intervenes and rescues him from the hands of his executioners. The people demand of the Tribune the execution of the culprit, *i.e.*, the 'application of the law.'

C. CLERMONT-GANNEAU,
Drogman-Chancelier du Consulat de France à Jerusalem.

JERUSALEM, May 30th, 1871."

* Whiston's translation is here given.

FROM A LETTER OF MR. DRAKE.

Damascus, June 11, 1871.

"I ENCLOSE a few of the inscriptions* that I copied (in all about 120) in Jebel Druze Hauran. I have had no time to write out more of them. I was only there a few days, so did not collect so many as I hope to do on a second visit. Some of them have, I know, been already copied, but others were so covered with lichen, that it was impossible to make anything out till I had cleared them; others were concealed by plaster in the houses. From Jebel ed Druze, after much opposition from the Druzes at Shukka, who were afraid to accompany us and were ashamed of letting us go alone, we went to Umm Nirán (*Mother of Fires*), a curious cavern, partly natural and partly artificial, in the great lava outburst (called El Wár, the *Rugged*) between the Lohf Ergheile and the Tubul Ergheile (called *geile*, and incorrectly laid down by Wetzstein). There are no ruins near it, and it is very curious, as water drips from the roof, and the whole of the country above is an arid fiery waste of black lava. Thence we went to El Akir and other volcanic tels in the neighbourhood, thence to Bir Kasam, and afterwards to Jebel Dakweh. From these volcanoes, many of which are of considerable size, I was able to lay down the whole series of tels north of the Safa. From Jebel Dakweh we went to Dumeir, and just missed, by a few hours, a foray of 100 horsemen and 200 men on camels, who seem to have been dodging us for two days, but who missed us owing to our erratic course. They plundered Harran el Awamid and two neighbouring villages within half hour's ride of a camp of 600 Turkish soldiers.

"In the Hauran we found the true source of the Leja (Tel Shiha), whose streams have been quite overlooked by previous travellers. Wetzstein's 'great lava stream,' from Jebel Kuleib (which we ascended), only exists on his map. Jebel Kuleib, *the turning-point*, not as Mr. Porter translates it, *the little heart*, gave a valuable round of angles.

* These can be seen at the office of the Fund.

GREEK INSCRIPTION ON A STONE FOUND AT
SAMARIA, NOW IN POSSESSION OF YAKOOB
ESH SHELLABY.

FORWARDED BY DR. CHAPLIN.

Μ · ΔΙΚΙΝΝΙΟΨΑΛΕ
ΞΑΝΔΡΟΟΚΕΥΤ
ΜΝΑΚΙΤΙΟΨΟΤ
ΑΡΤΕΙΝΟΤΤΗΚΤΡΙΑ
ΠΑΤΡΙΔΙΠΩΝΙΑΙΩΝ.

LIMESTONE COLUMN DISCOVERED IN THE RUSSIAN BUILDINGS AT JERUSALEM TO THE WEST OF THE NEW CHURCH.

MR. TYRWHITT DRAKE reports (May, 1871) the discovery of a column in this place. It is 40ft. 5in. in length (including base, lin. in relief and 18in. broad); its diameter at base is 6ft. 3in. It lies in direction N.N.W. and S.S.E., in a reddish soil, with broken stone and a few fragments of pottery. It is at present only uncovered at its N.N.W. end, for about 6ft. in the centre, and sufficiently at the S.S.E. end to show how far it extends. The top is only 6 to 10 in. below the present surface of the soil.

Mr. Drake adds:—

“The column has only recently been discovered, and I have urged upon the Russian authorities the desirability of uncovering it, which could be done at a very trifling expense. The length of the column, if I remember right, agrees with that given by Josephus as the height of the columns of Herod’s temple.”

THE MOABITE STONE.

THE following statement by Herr H. Petermann, late Prussian Consul in Jerusalem, is translated from a communication in the *Zeitschrift der Deutschen Morgenländischen Gesellschaft* for 1870, Part IV. :—

“In the end of August, 1868, my friend, the Rev. Mr. Klein, one of the agents of the English Mission, returned to Jerusalem from a journey round the Dead Sea; and on the following day he reported to me, in the presence of three friends, on the subject of a stone which had been shown to him by the Bedouins in the neighbourhood of Dibon (the ancient Dibon), with the express assurance that he was the first European by whom it had been seen. According to the entry in his diary it was 3 spans broad, 5 spans long, and $1\frac{1}{2}$ thick; or accurately 70 centimètres broad, 1·13 metre long, and 35 centimètres thick; probably of basalt; and with a very distinct inscription of 33 lines, in excellent condition, except a few lines at the top, which were somewhat defaced. Mr. Klein, not being prepared for such a discovery, had no squeeze-paper with him; and as he had been obliged to proceed immediately on his journey, he had not been able to make a transcript of the inscription, but had copied only certain letters, which I immediately recognised as Phœnician. By the next post, on the 29th of August, I wrote on the subject to Berlin; and as I saw danger in delay, I begged to know by telegraph whether the Direction of the Royal Museum were inclined to pay 100 napoleons, if necessary, for acquiring the stone. On the

15th of September I received a telegram from Lepsius, empowering me to expend the sum named. To avoid the danger of any competition, I entreated both Mr. Klein and the three other persons to say nothing about the matter. One of them, however, informed me that he had already spoken to Dr. Barclay, the chief of the English Jewish Mission. Dr. Barclay had probably given the information to Capt. Warren, as there is reason to believe from the subsequent proceedings. These gentlemen, however, were discreet enough to make no use of the information, well knowing the extreme importance which I attached to the acquisition of the stone. It was not until after my departure, and when the Prussian Consulate took no further interest in the matter, that, possibly either through them or through Saba Cawâr, an Arab whom I had sent to the Bedouins, the matter came to the ears of M. Ganneau, Chancellor of the French Consulate.

As soon as I received the authorisation from Prussia I consulted Mr. Klein—who, during his lengthened journeys amongst the Arabs, has acquired a perfect knowledge of their language and much experience—as to the best method of obtaining possession of the stone. He wrote a letter to the Sheik Fendi Feiz, whose authority is acknowledged by the Bedouins of Diban, requesting him to assist him in the matter of the stone, hoping thereby to obtain it at the cheapest rate. The letter, and a quantity of felt which I purchased for packing the stone, was sent without delay by the hands of a teacher named Behnam, the able assistant of Mr. Klein, and well known to the Sheikh. I waited a long time for the answer; and when it arrived, it was by no means satisfactory. The first news I received, before the end of September, was that Fendi Feiz would consult upon the matter with the chiefs in whose territory the stone lay. Shortly afterwards, however, he left for Damascus, of course without having consulted any one. After his return, he informed us, to our great annoyance, that he could do nothing in the matter. I then, on the advice of Mr. Klein, made a second attempt; and, at my own cost, in March, 1869, despatched a second Arabic teacher, Saba Cawâr, who is also known to the Bedouins, direct to the spot. With a view of giving him a favourable interest in the affair, I gave him fifty-three napoleons, three of them for his expenses, with the undertaking that when the stone was delivered safe Jerusalem a further fifty should be his, without reference to the price he had actually paid. Unfortunately, however, he not only came back without the stone, but brought the information that it had been hidden by the Bedouins. He had indeed been allowed to see it; but the price now asked was not 100 but 1,000 napoleons, or rather 103,900 piasters, say from 6,000 to 7,000 thalers. Such a price was naturally out of the question; and I therefore wrote immediately, on the 19th of March, to Berlin that I now saw no means of acquiring the stone, but through the medium of the Turkish Government. In accordance with this, a despatch arrived in June from the Grand Vizier,—addressed, however,

to the Pasha of Jerusalem, whose jurisdiction does not extend beyond the Jordan,—directing him, in the event of there being no obstacle on his part, to permit me to obtain the stone at my own cost. The Pasha was at that time absent at a conference at Beyrout, and I despatched the letter after him, through the Consulate of the North German Union there. My letter, however, crossed the Pasha, and it was therefore necessary to wait for its return, by which several weeks were wasted. On the 23rd of June I sent the document to him; but received from him, as I expected, the answer that he could do nothing direct in the matter, because it belonged to the Pasha of Nablus, who again could only act on the permission of the Governor-General at Damascus. At the same time he sent me an open letter to the Wali of Damascus, requesting him to take the necessary steps. This letter, together with the despatch of the Vizier, I sent to our Consul in Beyrout, to be forwarded to the Governor-General. Before the answer returned to Jerusalem I had taken my departure, but not until I had strictly enjoined on the treasurer, Dr. Meyer, to do everything in his power to obtain possession of the stone, which indeed he did.

What follows is taken from the Report of the German Consulate at Jerusalem to the Chancellor of the Union, dated the 29th of April, 1870.

The Consulate now did all in its power to obtain at least a squeeze of the stone; but it was stated, both by Mr. Klein and by Saba Cawâr, that, in consequence of our recent attempts, the Bedouins had buried the stone, and treated it as being the shrine of an evil spirit, whose power would vanish with the taking of the squeeze. They were then waiting for the answer of the Wali of Damascus, but this had not arrived; and, as the Governor-General had left Damascus for some time, it was not to be expected yet.

In the middle of October Saba Cawâr made his appearance at the Consulate, and stated that there was a good prospect of bringing the stone to Jerusalem for the sum of 120 napoleons. In fact, the chief Sheikh of the Beni Hamedî had offered to let him have it on these conditions. Herr von Alten, our Consul-General, made no hesitation in adding the necessary sum out of his own pocket to the 100 napoleons guaranteed by the Berlin Museum; and he delivered 120 napoleons to Saba Cawâr with a stipulation that, if the stone were delivered at the Consulate within thirty days from the end of October, he should require no account of the manner in which the money had been spent, but that if not delivered by that time it must be returned. With these conditions Saba Cawâr gladly closed. He started again, executed a definite contract in his own name with the sheiks of the Beni Hamedî, in which they bound themselves to deliver the stone to him in exchange for the agreed sum as soon as he chose. But new obstacles occurred in the way of the transport to Jerusalem. Kaplan, the sheikh of the Adwans (probably from jealousy of the Beni Hamedî), refused to allow

his territory to be passed through. Nor were M. Ganneau and the French Consulate inactive, but were all endeavouring to get the stone into their possession; and thus, whether it was that Saba Cawâr offered too little backsheesh to the sheik of the Adwans, or that the sheik was in the French interest, certain it is that Saba Cawâr had to inform Herr von Alten, through Mr. Klein, that unless the Wali of Damascus exerted his influence it would be impossible to acquire the stone. This was in the beginning of November, at the time of the great official visits to Jerusalem, during which it happened that the Governor-General of Syria stopped a day in the city. After several fruitless attempts to obtain an interview, Herr von Alten made a written appeal to him on the ground of the firman from Constantinople, and received in a few days a reply to the effect that he could do nothing for him in the matter, since the exhibition of the stone to strangers was a source of income to the Beni Hamedî, the loss of which might not improbably cause a new revolt. How completely the Governor-General was deceived upon this point is obvious when we recollect that Mr. Klein was the first stranger who heard of the existence of the monument, and that at a later time it had been concealed by the Bedouins, as a sacred stone, to keep it from the sight of the Franks, who indeed only very rarely visited that dangerous locality. In addition to this, Saba Cawâr had already legally acquired the stone through a contract voluntarily entered into by the Bedouins.

On the 13th of October Herr von Alten met the Wali at Jaffa. The result of the interview was that, at his own desire, the Wali examined the contract which Saba Cawâr had made with the Beni Hamedî, and proposed to do all in his power to carry it out. Upon this, Herr von Alten gave Dr. Meyer instructions to obtain the contract by means of an express messenger from Saba Cawâr (who was at that time on the other side of the Jordan), to send it to Damascus, and to procure from the Governor-General's Department a safe conduct for the stone, as the property of the Consulate, against the various difficulties which its transport might incur from the hostile Bedouins. All this was done; and on the 20th of October the contract was sent, through the Consulate at Beyrout, to the address of the Governor-General.

At the end of the thirty days Saba Cawâr returned, in the hope of obtaining the answer from Damascus, and of transporting the stone to Jerusalem, through the aid of the Pasha of Nablus. Very shortly after, news arrived that the Pasha had actually requested the Beni Hamedî to deliver up the monument, but that, from their hatred to the Turkish Governor, the Bedouins had broken it up, merely to prevent its getting into his possession. The truth of this rumour, which we first heard from Saba Cawâr, was soon corroborated. The Bedouins on the other side of the Jordan, who in the previous summer had been in conflict with the Wali, and had been beaten by him, could not repress their hatred, and had taken these means of evincing it. Such is the

account of the part taken by the Prussian Consulate in the acquisition of the stone.

With regard to M. Ganneau, it appears that, hearing from Salt of the existence of the stone, he sent an Arab to the Beni Hamed, who, in his attempt to obtain a squeeze of the stone, was so roughly dealt with that he was glad to make his escape with a few pieces of wet paper. M. Ganneau himself, after his many years' experience in Jerusalem, did not attempt the costly journey to the other side, because he was well aware of the risk run by any European on such a quest amongst the Bedouins. After the fracture of the stone, he and Capt. Warren obtained, through an Arab, a squeeze of the two chief portions, as well as of some of the smaller pieces, and from these he commenced his restoration of the inscription, which was afterwards forwarded to the Count de Vogüé.

The result of the above official statement is, that the stone was discovered by Mr. Klein, the German preacher; that that gentleman informed the German Consulate of the same, with the view to their obtaining it; that a contract for its purchase was concluded between the Consulate and the possessors, and that the delivery of the stone to the Consulate was ordered by the Turkish Government. The ordinary rules of discretion would seem to have demanded that nobody should have interfered in the transaction until it had been regularly brought to a conclusion, or broken off.

H. PETERMANN."

ADDITIONAL NOTE ON THE DISCOVERY OF GOLD IN SYRIA.

THIS winter at Cairo, meeting with Yacoob esh Shellaby of Nablus, I asked him whether he had ever heard of the discovery of native gold in Syria. He said he had upon several occasions, and had seen specimens which had been found by countrymen *in the Jordan valley*. The nugget brought to me at Sebastiyeh referred to at p. 89, *Quarterly Statement*, 1st series, may probably have come from the same locality.

GREVILLE J. CHESTER.

ANNUAL GENERAL MEETING OF THE PALESTINE EXPLORATION FUND,

HELD AT THE ROYAL INSTITUTION, 29TH JUNE, 1871.

HIS GRACE THE ARCHBISHOP OF YORK IN THE CHAIR.

The CHAIRMAN: I will first call upon the Rev. F. W. Holland, one of the Honorary Secretaries, to read the Report:—

Mr. Holland then read the Report:

"The Report which the Committee of the Palestine Exploration Fund

have to lay before you this year will be a brief one. Our Society, in conjunction with all other societies, has suffered during the past year from the effects of the disastrous war which has been raging upon the Continent.

"Our operations have been affected by it in two ways : 1st, the continual drain of money from this country to alleviate the misery occasioned by the ravages of the war has rendered it difficult to raise funds for other purposes; and 2ndly, as long as the war continued, it was impossible to procure the services of officers and men of the Royal Engineers, since the Government would not allow any to leave the country. Nevertheless, some work of importance has been done.

"It will be remembered that at our Annual Meeting of last year (May 16, 1870) Captain Warren, who had lately returned to England with the other members of his exploring party, was himself present, and read a paper upon the result of his excavations at Jerusalem. The Committee retained his services until the commencement of the present year (when he rejoined his corps), in order that he might work up the materials which he had collected during his explorations in the Holy Land, which had extended over a period of three years.

"A detailed account of his discoveries at Jerusalem occupies the greater portion of the Society's book, which has been lately published under the title of the 'Recovery of Jerusalem.' In addition to which, reports of further explorations made by Captain Warren in Philistia, Lebanon, Moab, and other places in Palestine, have appeared in the *Quarterly Statements*, which have been placed in the hands of all subscribers to the Fund. But although the Committee have found it impossible during the past year to continue the excavations at Jerusalem, important work has been done in other directions.

"Mr. E. H. Palmer (who is present with us to-day, and will himself describe to you some of the results of his expedition), accompanied by Mr. C. Tyrwhitt Drake, has accomplished a journey of no ordinary interest across the desert of the Tih, (the scene of the wanderings of the children of Israel,) from Sinai to Jerusalem; thence turning southwards again through the Negeb, or 'South country' of the Bible, to Petra; and up to the shores of the Dead Sea, and through the whole length of the country of Moab.

"The Committee desire to express their sense of the valuable services which Mr. Palmer has rendered to the Fund, and of the zeal and ability with which he executed the task intrusted to him. With his name must be associated also that of Mr. Tyrwhitt Drake, who was his fellow-traveller, and our thanks are due to him for his co-operation and assistance. An account of Mr. Palmer's expedition, and his maps of the Tih desert, and Moab, have been already published in our *Quarterly Statements*. A portion of his survey of the southern passes of the Tih range has been incorporated in the Ordnance map of Sinai, which is being published under the direction of Sir Henry James; and the next *Quarterly* will contain further notices of his work.

“It is much to be regretted that his explorations in Moab did not lead to the discovery of inscriptions of importance, as was expected. He found that in consequence of the large sum which had been given for the now-famous Moabite Stone, all the Arabs in the country were busily searching for ‘written stones,’ and he heard of, and visited many, but none proved to be of great antiquity.

“It is something, however, to have had the country explored by so competent a traveller, and to know that there are no valuable inscriptions to be found there *above ground*, although, doubtless, there are many such lying buried in the ruins of some of the ancient cities, preserved, we trust, from the ruthless hands of Arabs, until the time when our Society can extend the area of its excavations and rescue them from oblivion.

“After completing his exploration of Moab, Mr. Palmer returned to Jerusalem, where he made a thorough examination of the inscriptions in the Mosque of Omar, which, it is hoped, will help to solve some of the disputed points with regard to the origin of that building.

“He afterwards made a tour through Palestine, and while at Damascus heard of some very curious inscriptions at Hamáh, the ancient Hamath of the Bible. Mr. Drake is at the *present moment*, *probably*, engaged in copying and taking photographs of these inscriptions for the Fund. And if an expedition to the east of Moab, from Damascus to Petra, which has been contemplated by Reshid Pasha, governor of Damascus, takes place, he will afterwards, if possible, accompany it on our behalf. This expedition to an almost unexplored country promises to be one of great interest.

“The publication of the Society’s book, entitled the ‘Recovery of Jerusalem’ deserves a special notice as forming a part of the past year’s work. It was felt that the detached, and necessarily incomplete letters sent home from time to time by Captain Warren, did not present a sufficiently clear account of his explorations at Jerusalem. Advantage was accordingly taken of his return to England to get him to draw up a condensed account of his work.

“To this has been added other papers on the work of the Fund, to which it was felt desirable to call attention, and the whole being largely illustrated with maps and woodcuts, forms a valuable record of the work which the Fund has accomplished. The success of this book proves clearly how much such a work was wanted, and how great an interest is taken in our explorations.

“During the past year a room has been obtained in the South Kensington Museum, in which are exhibited all objects of interest that have been found during the excavations at Jerusalem; a collection of the photographs taken in Palestine, and the eighteen fragments of the Moabite Stone which Captain Warren secured for the Fund. With respect to the future work of the Fund, the Committee have decided upon sending out a thoroughly organised expedition, under the

command of an officer of the Royal Engineers, to complete the survey of Palestine. It is well known that the best maps are still exceedingly inaccurate, and incomplete. The Committee, however, desire to state that they still intend to continue the excavations at Jerusalem, whenever a fitting opportunity presents itself. But the completion of the survey of the country lying on the west of the Jordan has been urged upon by a large number of the Subscribers, and they consider that it is, as matters now stand, the work which deserves most immediate attention.

“With regard to ways and means:—The amount received during the financial year ending December 31st, 1870, including all the sums obtained from subscriptions, donations, sale of publications and photographs, and collections at lectures, together with the balances of the previous year, amounted to £3,178 2s. 4d.; of this sum a balance of £429 11s. 8d. remained in the banks at the end of the year, £1,467 15s. 8d. having been spent in exploration expenses, £473 13s. 8d. in printing, illustrating, and distributing the *Quarterly Statement*, £82 16s. 7d. in advertising, £373 4s. 2d. in rent, salaries, postage, and office expenses, £63 10s. 0d. on the photographs of the Moabite Stone, and £410 3s. 4d. in the payment of old accounts. This is, on the whole, a satisfactory statement, considering the fact that no special appeal of any kind has been made.

“The Committee are at the present moment engaged in a negotiation for the purchase of the fragments of the Moabite Stone now in Jerusalem, in the possession of M. Clermont-Ganneau. It is greatly to be hoped that this monument will come into the hands of the Fund. The sum asked by M. Ganneau is very large, but the Committee have made an offer, which may perhaps be accepted.

“Through the agency of the Rev. Henry Allon and the Rev. Dr. Mullens, to whom the best thanks of the Committee are due, the cause of the Palestine Exploration Fund has been taken up in the United States, and the Americans have formed an independent Association, having the same objects as our own. They propose to act in perfect unison with the English Committee, and are about to send an expedition to survey and explore the country to the east of Jordan. In conclusion, the Committee have to record their thanks to Mr. Morrison, the Treasurer of the Fund, for his kindness in editing the ‘Recovery of Jerusalem;’ to Dr. Chaplin, of Jerusalem (who is present to-day), for kindly taking charge of our stores there, and for his Meteorological work; to the Honorary Secretaries of the different Local Associations; and to all those who, by subscription or by advocacy of the Fund, have furthered and advanced its objects.”

The CHAIRMAN:—My Lords, Ladies, and Gentlemen,—I have so often presided at these meetings, that it would be worse than impertinent in me to occupy any great portion of your time to-day, especially as there are seven or eight speakers to follow me, many of them having seen this interesting country with which we have to deal.

But, representing those who have not taken an active part in the work, I am here to express my earnest interest in the Palestine Exploration Fund. The scheme now proposed will commend itself to a practical people like ourselves. There is no map in existence worthy of the name of a map of that country, Palestine, of which the Bible has made us all citizens; and if you will inspect the paper which has been distributed in the room, you will find that thirty square miles of the Ordnance Survey of Kent are put in comparison with the same area of a portion of Palestine, as it is known to us, and you will find that one page is almost black, and the other is almost blank. This want can be supplied at the cost of £15,000. This is a considerable sum, I grant you, and I think I hear some of you say, "Let the people of the country make their maps for themselves!" It is one of the first duties of the people of every country to make maps for themselves; but there is no probability of a complete survey of Palestine unless we and America undertake it together. We propose to do this. You see the difficulty which Palestine presents to our notice. We are, in a certain sense, citizens of that land, which is hallowed to every Christian as being the place where our Lord once stood, and where he uttered those words which have vibrated throughout the world for ages. It is the same to the Jew; the same to the Mohammedan. The Mohammedan regards a pilgrimage to the Holy City as second only to the pilgrimage to Mecca itself. It is the country of these three great religions. Every one of us has a common interest in this country, and no part of it is foreign to us. There is one point to which I would draw special attention. Man has this glorious and remarkable prerogative—he is the lord over creation, and man makes the country in which he lives. A few days ago, I saw a field which had been under agricultural treatment for sixteen years, and by the process of applying chemical substances to the soil, a silent process of alteration was going on by man's treatment; the nobler grasses were taking possession of the whole soil; out of fifty-eight species only eighteen remained, the rest had gradually disappeared. And here, some of the finest parts of London which are situated near us have been reclaimed from waste and rendered what they now are by man. Man alters the country altogether upon which he treads. But it was not so in the state of civilisation described in the Bible, and you cannot understand the people of the Bible without being well acquainted with the country in which they lived. The soil had an influence on the character of the people; there is a local colour in the Divine books which they took from the country itself. Those simple people had not come to dominate the soil, its natural features were reflected in them and in their habits. Therefore if you would really understand the Bible—which we circulate every year by millions—you must understand also the country in which the Bible was first written. And this is not a dull uninteresting tract of sand, with no natural features to attract your attention. It is as interesting

as any on the face of the earth. You have the valley of the Jordan, the course of the river being all along below the level of the sea, and ending in a lake 1,300 feet below the level of the sea. You have, in the north of that country, that splendid mass of mountains to which it owes its fertility—the source of the river never ceasing to flow, which I have described—all of which, in the midst of those I see around me, it would be impertinent in me to dilate upon. Those things make Palestine as interesting, apart from its associations, as any country could be; but when we think of those associations, when we think of the precepts of the Gospel, and that higher life which it reveals, then it should be the duty of Englishmen and Americans to spend a little money on this object. If we find money for almost every other fancy that men may conceive, we may well spend it on this survey of Palestine. (Cheers.)

Mr. GEORGE GROVE said:—My Lord Archbishop, Ladies and Gentlemen—I am glad to have the opportunity of making a few remarks on this occasion, because though I am not able to take the same active interest in this matter as heretofore, my heart is in it as much as ever, and I am anxious to inoculate all who hear me with the same interest that I take in it myself, and I hope it may be to you the same motive, active power it was to me for many years. The great object of our meeting to day is to start this new survey of Palestine. Now, if anything can be wanting to supplement the admirable observations of the chairman, it is the fact that a survey was one of the things most prominently put forward by those who started this Fund. They knew how great the want was of a new map of Palestine. The Bible was then beginning to be studied in a new way, and we found great difficulties in pursuing that study, because there was no map sufficiently accurate or complete. I may illustrate this by two or three things. Some years ago I had to write the chief articles on the topography of Palestine for Dr. Smith's "Dictionary of the Bible," and I then discovered, what nobody who has not gone into the matter can have any idea of, the almost insurmountable difficulty of reconciling the statements of different writers in books. You will hardly believe that the great work on Palestine topography is still that of Reland written more than a century and a half ago—in 1714. That learned and sensible Dutchman collected, with great care and judgment, all that had been written on the subject of travel, and on the topography of the Holy Land, by Greek, Roman, and other writers, and put them into a system, and although so many thousands have visited Palestine since his time, it is astonishing how little that book is superseded, and in consequence how imperfect our knowledge of that country is. At the time I needed it no map existed that could be depended on. I had Van de Velde's and all the other maps, but with all their help it was impossible to find one's way about the books of the Bible. For instance, the book of Joshua consists, to a very great extent, of lists, of the most detailed and definite kind, of

the villages and tribes of the country, much as the Domesday Book of England does. Now we can trace the names that have survived in England from the Norman times, and so we could in Palestine if we had the means, for the changes in names are less there than with us. But there was not then, nor is there now, any map in which these names are at all accurately or fully given. One means, it is true, we have. In the Bible we have a document which recognises and reflects, in the most persistent and remarkable manner, the features of the land in which the Bible was written. Large portions, not only of the Old but the New Testament, consist of references to small families and little tribes,—who, apart from their share in the sacred history, were of little importance in the world; and they are all spoken of as if everybody knew where they lived, and the roads by which they went; and it is impossible to understand this unless you have a map to do it with. I have been lately giving my attention to the construction of a new map of Palestine, intended to be founded upon the discoveries of Captain Wilson, Captain Warren, Lieut. Anderson and others, but the difficulty of putting these surveys, and the observations of these gentlemen, together, in conjunction with the maps we had before—French, German, and other maps—the difficulty of putting them together has almost baffled the able geographer who has had the task in hand; and, therefore, that is an argument for beginning a survey at once, and from the beginning. It is true we have the coast line carefully surveyed, and that may be depended upon; but beyond that we should make a clean sweep of what has been done before; and there is no doubt that we ought to produce, and can produce, in a definite time and for a certain definite expense, a complete map, which once done will be done for ever. Now it may be said, and indeed it is a very obvious remark, “Why make a new survey? Why not take the old ones and put them together and supplement them?” But this can’t be done with any satisfactory result. It is as difficult to piece together discordant surveys as the discordant reports of travellers I just mentioned. Captain Wilson’s map of Jerusalem is as good as any Ordnance map of London, and we mean our survey to be as good as the Ordnance survey of England. One thing that encourages us in undertaking the work, is the extreme practicability of the thing. You know the difficulties that occurred in our excavations of Jerusalem. We had to wait the pleasure of pashas and effendis, and were driven almost to the necessity of bribing, but in the country we shall have much less of that kind of thing. People are fewer and simpler. The villages are friendly, and the country contains prominent points which will make it all the more easy for surveying, and there can be no reason why it should not be begun and gone on with and finished without interruption. That is an important point to know.

But because we are going to survey the country I don’t wish you to suppose that we are going to give up our researches at

Jerusalem. That must always be the central point. To us of the Palestine Fund Jerusalem is really and strictly what it was believed to be in the Middle Ages—the centre of the world; and to it we must always finally gravitate, however we may spread ourselves in other directions for a time. And the encouragements to proceeding with excavation are very great. We were probing down with our little shafts through strata of rubbish from 80 to 150 feet thick, totally in the dark as to where we were and what we should come to; and that our probing should have been rewarded as it has been, shows not only what reward will always attend honest exertions, but also what a wealth of things there must be below the surface awaiting discovery. We have really had a great many results. Some people thought that we should find a copy of the law under the ruins of the Temple. We have not done that, but we have increased the interest of the public in Palestine, and if we had only succeeded in showing the intimate connection between the book and the country, I think all our time and trouble would have been amply repaid; but we have done more than that, we have continually brought home news about the walls of Jerusalem, and about that immense wall which runs round the city at a depth of 100 or 120 feet below the surface, and we have found out a great deal of the absolute topography of the city and a great number of disjointed facts, which will all fall in their places when we have gone further in our discoveries. It is just the same as if you have a joining map; every fresh piece you get adds to the intelligibility of the rest, and so it is with the fragments of our discovery; every fresh fact becomes of more and more relative value.

When we think of the great space over which the field of exploration at Jerusalem spreads, and of the single-handed, unassisted way in which Captain Warren had to go about it, I think we have every reason to congratulate him and ourselves. There are one or two indirect results of our expedition which are of great importance. For instance, there is the Moabite Stone; but for this Fund, nobody would have cared for the Moabite Stone, and it would have been lying now in the same oblivion as it was before. It is the spirit of research which we had instituted which urged on the discovery of it, and if we get that stone, as there is some prospect of our doing, it will be a great triumph for us. (Hear, hear). I heard yesterday of a great discovery recently made in Jerusalem by M. Clermont-Ganneau. He has found a large stone with an inscription in seven lines in Greek, from which it appears that it was one of the stones placed round the Court of Herod's Temple, and the inscription was intended to warn every one to keep out of that temple on pain of death. Now these stones are mentioned by Josephus, who calls them by the same name—"δρυφακτος"—by which they are called on the stone itself, an unusual name, and a striking corroboration of the assertion of Josephus. It is just as if he had written his description with this stone before his

eyes. That, too, I believe would not have been found, or even looked for, but for the spirit of investigation and research which we have set on foot, and therefore that again is a great encouragement to us to proceed with our excavations. (Hear, hear).

One word more as to the obligation which lies upon us to do this work: because if we are not convinced of that we ought to be. I cannot urge this more appropriately or more forcibly than by a passage from a recent speech of the Dean of Westminster on the subject of St. Alban's Abbey. The Dean says: "This nineteenth century I believe to be the very first age of the world which, by a long course of civilisation, has had clearly impressed upon its mind, in a manner which no other generation ever had it impressed, the peculiar value of these ancient documents, the peculiar duty of preserving them to future ages, and the peculiar insight into their merit. We have far more light on the subject than any other generation of our countrymen ever had before; and if we allow St. Alban's to fall it will not be from mere insensibility, but a positive sin against the light granted to us." Bravo, Mr. Dean! What you say of St. Alban's applies even more strongly to the survey of Palestine. If we, the intelligent instructed people of England, who know the Bible so well and can appreciate the gain which it will be to have a thoroughly good minute map of the country of the Bible, do not support and carry through this survey, it will not be, as it would have been to our forefathers, from mere insensibility, but it will be a positive sin against the light granted to us. (Loud cheers).

Sir H. RAWLINSON, K.C.B.—My Lord, Ladies, and Gentlemen,—In obedience to the mandate of the chairman, I rise to move the first resolution; and I am proud of this opportunity, as President of the Royal Geographical Society, to bear testimony to the value of the services which have been rendered to the cause of geography by the Palestine Exploration Fund, and the more so as those services of the past are an earnest of success in the future. It is hardly necessary to point out to any meeting, still less to a meeting of the character I am addressing, the general importance of geographical investigations, but I may remark that this importance is greatly enhanced as it applies to Palestine; because merely reading the Bible without the help of maps, or with a dry catalogue of names to refer, is very much as if a physicist should seek to restore the anatomy of a human creature by the mere inspection of the dry bones of its skeleton. Palestine is now in this respect a skeleton; but when we have completed the survey we propose to undertake, it will be instinct with life and vitality. If we can only define the sites of the great events of the Mosaic and Christian histories, such a definition must inevitably excite our interest and confirm our faith. At present as we know hardly anything of the interior of the country, the events which occurred in it appear, in many cases, with the dreamy and uncertain outline of an ancient legend, whereas, when this survey is made, they will take the familiar features

of practical life, and will thus arouse our interest and lead us the more assuredly to believe that which we are reading. Let any one take up that most interesting chapter, which is to be found in the "Recovery of Jerusalem," on the Sea of Galilee, and let me ask him whether he does not rise from the perusal with a much better appreciation of the harmony and truth of the Gospel than he could have had before? It has been said by a French writer, though with some exaggeration, that the geography of Palestine has the force of a fifth Gospel, as it completes and harmonizes the other four. What I want then to bring to the special notice of this meeting is the little progress that has been made towards the acquisition of this fifth Gospel. But it is necessary, in the first place, to let you know what has been done, in order to show what remains to be done; and I will draw attention, therefore, to a few of the chief geographical results accomplished by the recent surveys. First, we have Captain Wilson's reconnaissance survey, from north to south, over an extent of above 100 miles. The survey commenced at Banias and was continued to Jerusalem; but, as Lieut. Anderson says, "the extent of work accomplished compared with what remains to be done is as is the seam of a coat to the whole garment." If we measure the whole country, from Dan to Beersheba, it will give us an area of about 8,400 square miles, of which not one-twentieth part has been surveyed. Lieut. Anderson, in fact, says the region has been only "partially explored;" thereby confirming what Mr. Grove has so graphically brought before you. The second geographical result I must bring to your notice is the survey of the peninsula of Sinai, by Captains Wilson and Palmer, and Messrs. Palmer and Holland. This is a most valuable work, and, as far as that particular part of the country is concerned, may be considered as exhaustive and complete. And the third result to which I would call your attention, is Captain Warren's description of the country east of Jordan, and his admirable paper on the Plain of Philistia. In this last named paper he states that he has examined 800 square miles of the country on the Mediterranean, and has determined the latitude and longitude of more than 200 points, a most creditable work for him to have accomplished, almost unassisted, and in such a desolate region. In Captain Wilson's paper on the Sea of Galilee, I must further notice his discovery of some most interesting sites. He has done much to explain the geography of Capernaum, Bethsaida, and Chorazin, and he has also written a very interesting paper on the site of Ai and the altar of Bethel. I now come to the last paper on the list, namely, the recent journey of Mr. Palmer and Mr. Tyrwhitt Drake in the descent of the Tih. This I have no hesitation in pronouncing to be really a wonderful work. The more I have examined it, the more impressed I have become with the extraordinary success which has attended their efforts, without any due preparation or adequate means. I think I may say that the council of the Royal Geographical Society would hardly have imagined

it possible that a party so small in numbers, and so moderately equipped, could have produced such a map, or even that the country could have been traversed at all; I must repeat that the map which they have given us does them infinite credit, and I allude to it particularly, because if so much can be done with such inadequate means, it must be evident that, should the new survey which we now propose be properly supported, it will give us results that may bear comparison with any in the records of geography. I look upon both of the maps which I have noticed as highly creditable achievements—the map, I mean, of Moab, and this map of Negeb and the desert of the Tih, which the Royal Geographical Society would have been most proud to have had executed under its auspices. Mr. Tyrrwhitt Drake, I am further given to understand, is at this moment employed in another most interesting work, being about to accompany Reschid Pasha directly across the country between Damascus and Petra, along a line which is almost a blank, at present, in geography. I must also pay a tribute to the admirable paper by the Count de Vogüé in the “Recovery of Jerusalem,” on the Hauran. The paper in question was sent in under very remarkable circumstances. When it was required for publication the Count was in the field in charge of an ambulance corps. On receiving the notice, however, he returned to Paris, and forwarded his manuscript; sending it off unfinished as it was, and then returned to his duty and to the aid of his suffering countrymen. I am sure it must be very gratifying to us to be honoured on this occasion with the presence of one of the best known explorers of Palestine, the Count de Sauley; because, although we have hitherto been working independently, we are always anxious to co-operate with foreign explorers or students, whether French or American. At present, indeed, we contemplate an organised co-operation with the American Palestine Society, undertaking for ourselves the survey of the country to the west, and leaving that to the east of Jordan to the American Society. But for carrying out this work the meeting will understand that means are required; that, in fact, we want the sinews of war. The point then which I have the honour to impress specially on your attention is—that you should, each of you, not only aid our object individually, but that you should seek to impress upon your friends and acquaintances the real importance of the survey of Palestine, and the necessity there is for obtaining funds to support it. The resolution I have the honour to propose is couched in the following words:—“That this meeting hails with satisfaction the announcement of the Committee of their intention to take immediate steps to complete the survey of Palestine, and pledges itself to support them in this important work.” (Cheers.)

The Rev. GEORGE WILLIAMS.—I have extreme satisfaction in seconding this resolution, because I agree so entirely with the language of it. I do hail with satisfaction the announcement of the proposed survey. I shall not be suspected of want of appreciation of

what the Fund has done for Jerusalem if I say that, looking to the interests of the topography and archæology of Palestine, I have regretted that this work which is now to be undertaken has not been carried out before. You have already heard a great deal on this point, and you may have seen the papers which have been circulated in the room on the importance of this matter and its bearing on the right understanding of the Bible. That which has just been accomplished in the survey of Mount Sinai is the best illustration of what may be done for Palestine. I am surprised that no reference has been made to a former Ordnance survey of that country, mentioned in Vandeveld's introduction to his book. You must be aware that his map is grounded on a survey of the country by our Ordnance officers. It was never published, but it was printed in three large sheets; and Lord Clarendon, when he was Foreign Minister, sent me a copy of it. I consider it the best yet published, even better than Vandeveld's. It is a thoroughly honest map, based on a complete survey of that part of the country through which they passed; and it might, I think, well form the basis of the survey of the country which is now to be undertaken. Sir Henry Rawlinson has alluded to a map of the Sea of Tiberias, of which there has been a reduced copy published. It is a most beautiful specimen of the work which Captain Wilson did there; and it is, I need hardly say, most interesting, as the chief seat of our blessed Lord's ministry, and is that part of the country which, next to the cities of Jerusalem and Nazareth, has the greatest interest to all Christians. But there is a survey of another part of the country which to me has almost as great an interest as that. This was drawn, I think, by Lieutenant Anderson, and represents the neighbourhood of Nablous. It gives the mountains of Ebal and Gerizim, the plain of el-Mukhnah, to the east; and the valley that runs up from Jacob's Well to Nablous. This is of immense historical value, because it not only represents places we have been familiar with, but illustrates a curious and interesting coincidence in the observations made by Captain Wilson, by Lieut. Anderson, and by myself. We are convinced that we have found the place of the great national assembly of the coming in of the Israelites under Joshua, when the Law was again proclaimed, and where Joshua assembled the tribes shortly before his death, and gave them that exhortation which we find at the end of the book of Joshua. The place is identified by this fact. There is a sacred place which goes by the name of El-'Amud, *i.e.*, the column; and when we know that Joshua set up a stone of commemoration, and find the name still in use among the Mohammedans, and that the Mohammedans regard it as a sacred place, it seems beyond question that we are enabled to fix that as the spot where the covenant was renewed in the days of Joshua. The place, too, has this remarkable peculiarity:—There is found in the roots of Mount Gerizim and Mount Ebal, a double amphitheatre, so perfect, that you would

think it must have been artificially formed, and you see an appearance resembling benches in the natural strata of the limestone rock, rising up tier above tier, in a kind of theatre with a stage in the midst, thus presenting an opportunity of gathering together an almost innumerable concourse of people. I have no doubt that this is the place where Abraham erected his first altar, and where Jacob afterwards repaired or renewed the altar which his grandfather Abraham had built, and which has been regarded as sacred by all races from that time to the present. No doubt there are other places in Palestine which would yield results very little short of this, if the country were to be thoroughly explored. The Bible was not written to teach us about battle-fields and strategy; but there are in it geographical touches which light up its history in a marvellous manner, and when a complete map is made it will illustrate the sacred text in a way we are not aware of. I am sorry this survey near Nablous did not go farther, because if it had it would have given us the tombs of Eleazer and of Phineas. Then there is another part which I am very anxious to have surveyed as carefully and as much in detail as possible, and that is the Valley of Elah, or es-Sumt as it is called now, which is associated with the history of David. That Valley of Elah, which is mentioned in the seventeenth chapter of the first book of Samuel, is one of the most clearly marked sites in Palestine. There are many names mentioned in the Bible which, in their present Arabic forms, cling to the places, and enable us to identify the sites of these events without question. The lists of places in the book of Joshua have been mentioned,—those marvellous topographical lists, of which I have said before, and must repeat again, I have no doubt we should recover nine-tenths of the names or more, if the country were thoroughly explored, on one condition that I shall mention presently. But the question is, how is this Survey to be accomplished? It must be evident that, if £15,000 are required for the purpose, we must all exert ourselves to the utmost of our power to raise this large sum. But, supposing the money to be got, what will be the best way to set to work for the survey of the country? I am delighted to see that it is proposed to be done by Ordnance officers, because we may trust that they will do their work in that country as accurately as they have done it in this country, and because the prestige which they have established by the work they have done here would give great authority to their work in Palestine. Dr. Pusey says, "Would it not be possible to have a *quasi*-Ordnance map?" but I should earnestly hope that we may have a real Ordnance survey and map. I have only one more word to say, and that is, that it seems to me to be a matter of great importance that there should be attached to this survey, as there was to the survey of Sinai, some one who is thoroughly conversant both with the English language and also with the language of that country. I have here the nomenclature of Sinai compiled in the most masterly manner by Mr. E. H.

Palmer. It is a work of immense value, and therefore I do hope the Executive Committee will do their best to prevail upon Mr. Palmer to accompany this expedition, and give us the meaning of the names, just as he has in this nomenclature of Mount Sinai. It is only by this means that we can arrive at a proper description of this country, because the names of places have undergone slight alterations, and owing to the form of the language, it is only such a thorough master of Arabic as Mr. Palmer is who can do what is required in this respect. I am sorry to have occupied so much of your time, but it is because this is a subject in which I have for many years felt so deep an interest. (Cheers.)

The Rev. Dr. BARRY.—As I have not hitherto been a subscriber to this Fund, I appear in the interesting attitude of a convert, for I have come to the conclusion that whatever other calls there may be upon me it will be my duty to subscribe to this most important object; besides that there may be some interest in the view which may be taken by one who has no special knowledge of the subject, but, simply, as it is one of the many movements that are going on for the illustration of Holy Writ. It has been found that it is our duty as much as possible to bring out, not only the supernatural and divine elements in the study of the Bible, but that element which is natural, and I regard this as one of the great movements in favour of that kind of illustration, and because it is a great movement, I say the greater is my interest in it. Although for generations man has been commenting on the Bible, and has been found desirous of pouring out his knowledge in the illustration of it, there is a large amount of illustration still to be done. Every one knows the value of historical illustration, and the labours of Mr. Penrose, and Dr. Smith, and others. The history of St. Paul's shipwreck, although it has been in the hands of Christians for centuries, has been wrought out with a vividness hitherto unknown. On the first reading of the work on Sinai and Palestine, which I may mention in the presence of its author, we felt at once that we had gained a vivid and lifelike picture which enabled us to understand our Bibles better than before. There are many results yet to be yielded, and any exertions we can make in this direction will not only tend to the promotion of science,—and it is no slight thing to make such a map as is now proposed; it will be one important addition to our knowledge of the world,—and although this is a very great object, it is small in comparison with the effect it will have in illustrating more fully that book which contains the science of life, and the science of life hereafter. (Cheers.)

The Very Reverend The DEAN OF WESTMINSTER.—My Lord Archbishop, I will not detain this meeting long. So much has been already said to substantiate the necessity of having the survey made as proposed, that I may perhaps confine myself to one or two points which have been suggested by my own experience in Palestine. The Principal of King's College has spoken of my work on Sinai and Palestine, but what

I felt myself in Palestine, and what every traveller must feel, is that, in the way in which the busy-English travel, you are constantly leaving, on one side or the other, many points which you are anxious to know something about. This difficulty is aggravated by this peculiar circumstance in the history of Judæa and Palestine—that, whereas in former times the ancient inhabitants, both Canaanitish and Israelite, endeavoured to live on the tops of the hills, the modern roads, on the other hand, are in the valleys, and you are therefore constantly avoiding, and it might appear purposely avoiding, the very sites that you would most desire to explore. Now it is those very hill tops which an Ordnance surveyor will take into consideration as he would similar deserted hills and ruinous places in England; and it is really quite enough to say that as we have an Ordnance survey of England, and I believe, also, of Greece, it does seem to me quite absurd not to have an Ordnance survey of Palestine. Those deserted hills and ruinous places have been observed by travellers from time to time, but their relations to the valleys and the roads have not been put together. My distinguished friend M. de Saulcy paid particular attention to those piles and heaps on the shores of the Red Sea; and I hope that another advantage this society will have is that his fellow-countryman, M. De Vogüé, is under the present government of France, and I hope under whatever government that country may have, may long remain its representative at Constantinople, and that under his auspices every traveller going to Palestine will receive every encouragement and information which visitors to this sacred and most interesting country can possibly desire. I concur most heartily in the resolution which has been moved and seconded. (Cheers).

His Grace the ARCHBISHOP OF YORK having left the Chair, it was occupied by W. MORRISON, Esq., M.P., who put the resolution to the meeting, when it was carried unanimously.

DR. BIRCH.—I have much pleasure in moving the second resolution. The object of it is in connection with the American institution, which has been formed at New York, in imitation of the Palestine Exploration Fund, in order to carry out excavations in Palestine, and which holds out the hand of friendship to us in the way which has been brought before your notice this morning. There can be no doubt that this survey is highly important in order that we may have, for the first time, a really good map of Palestine. We have excellent surveys of portions of the country, but they do not extend over the whole of it. You have the result of Captain Wilson's and Captain Warren's labours, and others, but still you require an extensive survey all over the country, which will be of the greatest possible interest, because it is not possible to understand the history or the institutions of any country without having a clear idea of its topography. Without that, history becomes an imperfect and dim vision floating before the mind of him who reads it. In order to make this entire survey, which will cost as much as £15,000, it

will be most desirable that these two bodies should unite together ; and if you look at any map of Palestine you will find that our American friends have undertaken no slight task in investigating the eastern side of Jordan ; the western part, which we have undertaken, is bounded by the sea. I may say that I hope the survey, or the researches, will be carried beyond the limits of Palestine itself, because recent investigations have shown that many matters of great interest have been found out of Palestine proper. Although the excavations in Jerusalem have not hitherto afforded those results which we might have anticipated, that is owing to the peculiar position of Jerusalem itself. The ruins of the ancient city are very low under the ground, besides which the place is occupied by a living population ; but for the purposes of this survey you will not have to go 40ft. under the earth. From the excavations and researches which have been made at the instigation of the Palestine Exploration Fund by Captain Wilson, Mr. Palmer, and others, we have obtained a great deal of information, not only as to Palestine, but as to Egypt ; and when we find the right hand of fellowship so freely offered by the society in New York, we cannot do better than pass this resolution, pledging the meeting to co-operate with that society as the best mode of coming to a successful result. It is by the mutual co-operation of these societies in one plan for the formation of a perfect map, and by our action under the united flags of England and America, that we shall be able to reflect credit on both countries ; and I hope nothing will tend to disturb the equanimity that prevails between them. It is for these reasons that I ask the meeting to agree to this resolution, and as you have already heard so much upon the topography of Palestine, I will only say that it is upon those considerations that I call upon this meeting, in the words of the resolution, to "express its gratification at the establishment of an independent association in New York for the exploration of the Holy Land ; and at their proposal to work in unison with the English committee, by undertaking the investigation of the country east of the river Jordan, and that it pledges itself to a cordial co-operation with the American association "

M. DE SAULCY seconded the resolution.*

Mr. E. H. PALMER, in speaking to the resolutions, said :—It is true that Palestine, west of Jordan, possesses the greatest interest as being the more immediate scene of our Lord's life and ministry ; but the district on the other side, that is, the strip of country lying between the Jordan and the great Eastern desert, has many claims upon our attention. This region is very fertile, and in that respect may bear a favourable comparison with Palestine itself, and being fertile and also well watered, it has from the earliest times been thickly populated. While standing on one of the eminences in Moab I myself counted

* M. de Sauley's admirable speech (in French) was unfortunately not reported. Some of his suggestions will appear in our next *Quarterly*.

no less than eight fortified towns. The peoples who have successively occupied the country, and driven out the former inhabitants, have not built fresh cities on new sites, but they have in every case destroyed the town and built it up again with the old materials; so that although its outward features may be altered the town itself remains the same. For similar reasons the ancient name will always cling to the spot. In the east, and especially in Moab, the settled population is in constant dread of an attack from the predatory tribes inhabiting the desert; security is, therefore, the first condition required in selecting a site. A commanding position on some lofty eminence, the proximity of water, and many similar physical advantages, combine to influence the early settlers in their choice of a position, and the same considerations will have equal weight with those who come after them. It is impossible, therefore, to change the sites of towns, and when, as I have just remarked, one nation has vanquished another and rebuilt a town, it is just as much the old town as ever it was, and so we may go into the country, expecting to find, as we do find, the ancient names attaching to the ancient sites. I need only mention such names as Dhíbán and Ma'in, the modern representatives of the Dibon and Maon of Scripture, to support my statement. But it is not merely in the names of towns and ruins that we find these records of the ancient state of things, but among the people themselves. In their language, habits, and traditions, we find something constantly cropping up which illustrates the ancient records and confirms the truth of Holy Writ. A curious instance of that fell under my own notice. I discovered it in Moab, but I did not know its value till I came home. It was this: when we were encamped at Dhíbán, I asked the Arabs whereabouts the Moabite stone was discovered. The answer was, "Between the two *háriths*." Now *hárith* means a ploughman, and I replied, "I suppose you mean 'The two ploughed fields'?" "No," said my informant, "I mean those two hills;" and it appears that every eminence in the country surmounted by ruined sites is called a "*hárith*." I noted this at the time as a curious local idiom, and took no further notice of it; but when I came across the name of the ancient capital of Moab, Kir Haraseth, and referred to the Rabbinical authorities upon it, I found this word *haraseth* had considerably puzzled the commentators. Now *haresh*, or *haraseth*, in Hebrew is precisely identical with the word "*hárith*," which I had heard,—and Kerek, the present representative of the ancient capital of Moab, stands upon the most decided eminence of this kind; and we can well understand how the ancient city might have been spoken of as *par excellence* "the city of the hill," *Kír harasheth*. Thus we find in the present local idiom of the country the explanation of a difficulty which neither Jewish nor Christian commentators on the Bible were able to explain before. (Cheers.) In a similar way we find that traditions and customs live because they are localised. The people remember some

strange tale or legend that has attached itself to a place even better than they do the ancient stories of their former homes, and so it is among the Bedawin of Moab,—the Arabs who came from Arabia proper and turned out the original population. I found here the tradition of Lot's wife still existing and attached to a rock which presents a strange resemblance to a human figure. It would be idle to contend that the rock in question is actually the transformed wife of the prophet, but it is singular to find that the tradition exists on the spot where Sodom and Gomorrah were destroyed, and attaches itself to the most salient feature of the place. I can say nothing as to the scale upon which the American expedition is to be conducted, or the probable chances of their discovering ancient monuments, because I do not know what facilities they may have for excavation. I searched the length and breadth of the land, but could not find any more Moabite stones on the surface. With regard to this celebrated Moabite stone, however, I may say a few words. Unlike the former conquerors of the country, Mohammedanism never repairs; it only destroys, and in this case it has done us the service of leaving this interesting stone untouched upon the surface. It was solely owing to misunderstandings among the first discoverers of it, and to the fact that they did not know to which tribe of Arabs it really belonged, that the stone was destroyed; but had the discoverers of it been possessed of anything like authentic information respecting the people who inhabit the country it might have been preserved. Undoubtedly, beneath the *débris* of the ruined cities that cover the surface of the country east of Jordan, there must exist many similar monuments. I think, however, I have said sufficient to show you that there is good reason for exploring that part of the country and a fair chance of finding something tangible to reward us for so doing; and therefore I have had the greatest pleasure in hearing the announcement that America is about to send an expedition to the country, and I am sure every one here will desire to co-operate with them, and to thank them heartily for thus endeavouring to aid us in the work which we all have at heart. (Cheers.)

The resolution was carried unanimously.

A vote of thanks to the Chairman was then moved by Dr. CHAPLIN, and seconded by Mr. MACGREGOR.

ERRATUM.

In p. 119, *Quarterly* New Series, No. II., the second table of Meteorological Observations was printed from a wrong paper by mistake. The first table is correct.

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THE
PALESTINE EXPLORATION FUND.

THE NEW SURVEY.

THE Committee have great pleasure in announcing that the members of the new Survey Expedition are now on their way to Palestine, and in a few days' time will have commenced this important undertaking.

Sergeant Black and Corporal Armstrong sailed from Southampton in charge of the stores, on Saturday, October 21st, in the Peninsular and Oriental steamer, "Ceylon," the Company having kindly granted, as on previous occasions, passages for them at a reduced rate. Captain R. W. Stewart, R.E., who takes command of the expedition, has followed by the Brindisi route, and will arrive at Alexandria about the same time as the "Ceylon," probably on November 3rd. They will then proceed at once to Jaffa, and commence their work as soon as possible. It is, of course, impossible to speak with certainty with regard to the manner of conducting the Survey. Unforeseen circumstances may arise to alter Captain Stewart's intended plans; but it will interest our subscribers to learn what course has been suggested.

On arrival at Jaffa, the men will be set to work to unpack the stores and instruments, and get them ready for use. This will necessarily take several days, and meanwhile Captain Stewart will proceed to Jerusalem, and will call upon the authorities there, and other gentlemen who have taken an active interest in our work. The Committee have also given him special instructions to make himself acquainted, by a careful examination on the spot, with the topography of Jerusalem, and the results of Captain Warren's

excavations, in case he should be called upon at any time to make further explorations in the holy city. On his return to Jaffa, the survey will be at once commenced. The following notes, which embody the instructions given to Captain Stewart, having been prepared by Captain Wilson at the request of the Committee, will best explain the intended operations of the expedition.

The objects of the present expedition to Palestine are—

1. To obtain an accurate map of the country, on which, in addition to the topographical features, shall be laid down the sites of all towns, villages, ruins, roads, &c.
2. To collect, as far as possible, the native names and traditions connected with the various places.
3. To make tentative excavations where necessary.
4. To carry on a series of meteorological observations.
5. To make such notes as may be possible on the geology of the country, its botany, zoology, &c.
6. To take any opportunity which may offer of making excavations at Jerusalem, which will lead to decisive results.
7. To examine and make plans and drawings of interesting archæological remains in the country.
8. To carry out generally the scheme which has been proposed in the several prospectuses issued by the Committee.

The survey of that portion of Palestine lying on the west of the River Jordan is to be regarded as the principal object of the expedition. The American Palestine Exploration Fund, working side by side with us, will undertake the survey of the country lying on the east of the Jordan.

Scale.—The Committee consider that the scale of the finished map should not be less than one inch to a mile. Special localities and plans of important buildings to be on a larger scale, as circumstances may require.

Base.—The locality best suited for the measurement of a base is on the plain east of Jaffa, in the neighbourhood of Lydda and Ramleh. The two points, Lydda Mosque and Ramleh Tower, should be taken into the triangulation, and connected as soon as possible with a common point of the Admiralty survey at Jaffa, and also with the triangulation of the Jerusalem survey.

A second base should be measured on the Plain of Esdraelon, and connected with the first by triangulation, when the survey of the northern portion of the country is commenced.

Triangulation.—A regular triangulation will be carried over the country from the base line. The computation of this will be made in England, for which purpose copies of the observations will be sent home as soon as they can conveniently be made. The adoption of this plan will probably save considerable expense, since it will enable Captain Stewart to devote much more time to field work, and thus hasten the completion of the survey.

Some maps have been very carefully prepared under the direction of Captain Wilson, embodying the results of the Admiralty, and other surveys; and it will be sufficient for the field surveys if the points are laid down on the projections on these maps, either by plotting the angles, or by latitudes, and true bearings. There are also many points laid down on the projections with sufficient accuracy to enable them to be made use of in sketching. The field sketches will be made on any scale larger than the one inch, which may be found advisable. Copies of these, either photographs or tracings, will be sent home from time to time.

Altitudes.—The altitudes of trigonometrical stations will be obtained by reciprocal angles of elevation and depression, and by barometer; other altitudes by barometer only.

Excavations.—It is not thought advisable that any extensive excavations should be made until the survey shall have been completed. But slight excavations of a tentative character may, perhaps, be made with advantage at some spots which seem to promise valuable results.

Excavations at Jerusalem.—A false impression seems to have got abroad amongst some of our subscribers, that we are going to give up our researches at Jerusalem. Such is not the case, for the holy city must always remain the central point of interest; and to it we must always gravitate, however we may spread ourselves in other directions for a time. Two reasons have led the Committee to take up at this time the survey of Palestine for their special work; *first*—that, having tried every means to obtain permission to excavate *within* the Haram Area, and having failed to obtain it,

and few other spots remaining where excavations could be made which would promise decisive results, without proceeding on a scale to which the present funds are quite inadequate, it appeared advisable to postpone further excavations there until a better opportunity presents itself; *secondly*—the extreme importance of a speedy completion of an accurate and systematic survey of Palestine. The tide of Western civilisation also setting in more strongly every year—tends to obliterate the relics of past ages, which, if once lost, can never be recalled. It is well known that many old names, and traditions, and traces of the ancient inhabitants of the country, still remain, and no time should be lost in securing them. Very little, too, is known of those very portions of the country which were chiefly inhabited by the Jews, viz., the mountains and hill tops. The roads through Palestine are confined almost entirely to the valleys and plains, and few travellers have explored the country lying away from those roads. But, while the survey of the country is to be regarded as the main object of the present expedition, Captain Stewart has been instructed to place himself in communication with some trustworthy person at Jerusalem, so that he may be constantly informed of the state of things there; and if any opportunity should occur of making excavations within the city at certain important points which have been pointed out to him, he is to hasten thither and set to work at once.

It is hoped that he may be able to obtain the assistance of M. Clermont-Ganneau, whose name is so well known in connection with the discovery of the Moabite Stone and other discoveries at Jerusalem. M. Ganneau has already expressed his willingness to assist us in our work, and is a contributor to our *Quarterly Statements*. His assistance will be of the greatest value, since he has become intimately acquainted with the topography of Jerusalem by a long residence there, and has considerable knowledge of the mode of dealing with the people.

We must congratulate ourselves on having secured the services of so experienced and competent an officer as Captain Stewart to take the command of this expedition. He has been attached to the staff of the Ordnance survey of England for the last three years, having been in charge of the station at Chester; and, having

been formerly quartered in Ceylon, he has also had some experience of Eastern life. The two non-commissioned officers who accompany him are picked men from the Ordnance survey staff, and have been engaged on the survey of Scotland for several years. They have also received at Chatham, under the direction of Lieutenant Anderson, special instruction for their work in Palestine.

No trouble or expense has been spared in rendering the organisation of the expedition as complete as possible; and the instruments, the greater part of which have been supplied by Government, have been selected with the greatest care, and most accurately tested. Captain Stewart is himself an experienced photographer, and is well supplied with the necessary apparatus.

Lastly, we have secured the services of Mr. Tyrwhitt Drake. His assistance cannot fail to be of the greatest value. Mr. Drake accompanied Mr. Palmer in his interesting journey through the Desert of the Tih and Moab; and for the last twelve months he has been residing in Palestine, travelling about, and making explorations. He is well acquainted with the Arabic language, and has had great experience in collecting names and traditions. He has also for many years devoted his attention to the collection of objects of natural history. At present he is engaged upon an expedition in Northern Syria, but he hopes to be able to join Captain Stewart before Christmas. In every respect, therefore, this new work of the Palestine Exploration Fund promises a successful issue. One thing only is needed, viz., sufficient funds to enable us to carry on the work until its completion; and, when it is remembered that our work is nothing less than the collection and diffusion of information for the purpose of throwing light upon the pages of the Bible, it is impossible to believe that our appeal will be made in vain.

APPROXIMATE LATITUDES, LONGITUDES, AND ALTITUDES ABOVE MEAN SEA LEVEL OF POINTS IN THE PLAIN OF PHILISTIA.

BY CAPTAIN WARREN, R.E.

Name.	Latitude.			Longitude.			Altitude.	Name.	Latitude.			Longitude.			Altitude.
	Deg.	Min.	Sec.	Deg.	Min.	Sec.	Feet.		Deg.	Min.	Sec.	Deg.	Min.	Sec.	Feet.
El Muntâr	31	29	17	34	28	19		Burbareh	31	36	45	34	35	32	
Fânâ	31	29	25	34	45	55		El Jieh	31	36	54	34	36	41	
Ghuzzeh (highest minaret)	31	30	18	34	27	51		Huleikat	31	36	12	34	39	22	
Tubaka	31	30	41	34	41	14		Balad Menshiyeh	31	36	44	34	47	12	
Kufieh	31	30	20	34	42	15		Arak Menshiyeh	31	36	59	34	47	32	350
Tel Nargily	31	30	39	34	45	18	650	Quarries	31	36	33	34	48	40	420
Khan Mirhaz	31	30	56	34	47	45		Beit Jebrin	31	36	34	34	54	15	
Bir	31	30	55	34	48	12		Neby Nakhkhaz	31	36	59	34	55	58	1200
Anchorage	31	31	15	34	26	37		Beit Ula	31	36	15	35	1	0	1400
Sheikh Adwan	31	31	31	34	27	48		Nuba	31	36	44	35	1	30	
Neby Hûd	31	31	56	34	37	24		Nahlieh	31	37	37	34	34	25	
Hûj	31	31	13	34	37	11		Beit Tima	31	37	54	34	37	44	
Ruin	31	31	28	34	48	58		Falugy	31	37	48	34	45	5	220
Nesleh	31	32	13	34	28	7		Ruin	31	37	18	34	52	52	
Jebelieh	31	32	6	34	28	30		Wely Bulnak	31	37	13	34	53	59	760
Beit Hanûn	31	32	24	34	32	31		Kileh	31	37	9	35	0	5	1130
Jelameh	31	32	42	34	37	20	150	Kharas	31	37	10	35	2	10	
Tel el Hâsy	31	32	16	34	44	12	490	Kuratiyeh (castle)	31	38	45	34	43	41	260
Sheikh Ali	31	32	33	34	53	20	1210	Kuratiyeh (town)	31	38	48	34	43	58	260
Beit Lehia	31	33	3	34	28	53		Zeita	31	38	24	34	50	17	
Dimrah	31	33	44	34	35	8		Yatta	31	38	27	34	51	59	550
Ruin	31	33	31	34	35	30		Tel Bulnard	31	38	3	34	52	28	660
Negid	31	33	6	34	35	53	50	El Hulf	31	38	53	34	52	55	
Simsim	31	33	48	34	36	23		Kudna (castle)	31	38	59	34	53	48	950
Khan Kums	31	33	18	34	37	14	120	Kudna (town)	31	38	48	34	53	58	
Ajlan	31	33	58	34	43	20	360	Jebeibeh	31	38	13	34	54	22	1350
Ruin	31	33	30	34	43	28		Um Burj	31	38	12	34	58	10	1450
Tel Tunnur	31	33	14	34	43	53		Gurma	31	38	48	34	58	35	1470
Es Sukkariyeh	31	33	55	34	47	10		Sheikh Mudkor	31	38	13	34	59	45	1360
Tel ed Dewâr	31	33	56	34	50	25	800	Russeim	31	38	58	34	59	40	1140
Deir Esnaid	31	34	42	34	34	31		Abu Shûk	31	38	27	35	1	45	1350
Aran	31	34	14	24	36	5		Ruin	31	38	48	35	2	15	1360
Zeita	31	34	28	34	36	25		Askulan	31	39	53	34	32	38	100
Babliveh	31	34	5	34	36	50		Jorah	31	39	25	34	33	20	
Bureir	31	34	6	34	38	30		Julis	31	39	51	34	40	30	
Um Lakis	31	34	9	34	41	35	230	Arak es Saudan	31	39	6	34	42	10	250
Kubeibeh	31	34	18	34	50	52		Hatta	31	39	11	34	44	44	300
Herbia	31	35	55	34	33	28		El Juseir	31	39	41	34	46	50	360
Beit Jerja	31	35	40	34	35	52		Drusa	31	39	38	34	55	58	
Simbis	31	35	58	34	38	54		Big Tree	31	39	41	35	0	25	750
Ruin	31	35	5	34	52	15	880	Ruin	31	39	8	35	2	10	
Mar Hanneh	31	35	48	34	53	50	1060	Surif	31	39	22	35	3	15	1460
								Mejdel	31	40	25	34	36	15	

Name.	Latitude.			Longitude.			Altitude.	Name.	Latitude.			Longitude.			Altitude.
	Deg.	Min.	Sec.	Deg.	Min.	Sec.	Feet.		Deg.	Min.	Sec.	Deg.	Min.	Sec.	Feet.
Beit Affa	31	40	8	34	43	12		Deir Aban.....	31	44	32	35	0	28	
Sunmeil	31	40	7	34	43	10	410	Beit Atab	31	44	4	35	3	4	1590
Berkusia	31	40	49	34	49	40	660	Village	31	44	50	35	4	30	
Dhikrin	31	40	12	34	51	55	690	Esdud	31	45	18	34	39	41	50
Râna	31	40	20	34	52	52	700	Butanyeh	31	45	35	34	42	10	
Deir Dubban	31	40	34	34	53	35	930	Butanyeh	31	45	46	34	42	46	
Ruin	31	40	6	34	54	50		Yasur	31	45	45	34	45	15	
Ruin	31	40	35	34	55	20		El Mesmîyeh	31	45	10	34	48	12	
Ruin	31	40	59	34	56	50		Quarry	31	45	42	34	52	18	
Ruin	31	40	45	34	57	35		Enamôn	31	45	35	34	52	40	
Jebah	31	40	22	35	3	40	1750	Ferad.....	31	45	42	34	54	10	350
Hamâmeh.....	31	41	41	34	35	59	100	Village	31	45	3	34	56	10	
Abdis	31	41	12	34	42	28		Ruin, 'Ain Shems	31	45	8	34	58	0	730
Baalîn	31	41	15	34	49	25		Village, do. do.	31	45	5	34	58	25	
Ruin	31	41	35	34	51	50		Ruin	31	45	11	34	59	35	
Sotta	31	41	40	34	54	20	760	Tanturah	31	45	31	34	59	35	810
Ruin	31	41	53	34	54	50		Ruin	31	45	25	35	1	30	
Ajjur	31	41	24	34	55	10	880	Deir el Howa	31	45	10	35	2	7	1720
Ruin	31	41	28	34	57	5		Dome of Rock,							
Shuweikeh	31	41	3	34	58	5	780	Jerusalem.....	31	46	41	35	13	58	
Beit Natif.....	31	41	40	34	59	40	1200	Burka	31	46	31	34	41	38	
Town	31	41	15	35	3	50		Emazmeh	31	46	46	34	49	12	
Es Sawafir, 1	31	42	8	34	42	20		Ruseim	31	46	25	34	51	12	350
Es Sawafir, 2	31	42	7	34	43	12		Kuzaza.....	31	46	38	34	52	40	
Tel es Safiyeh	31	42	10	34	51	0	500	Rafat	31	46	46	34	58	0	920
Ruin	31	42	25	34	54	8		Mill	31	46	31	34	58	28	1190
Tel Zakarieh	31	42	2	34	56	5	1000	Surah	31	46	36	34	59	3	1150
Kefr Zakarieh	31	42	31	34	56	42		Artûf.....	31	46	16	34	59	50	910
Yarmuth	31	42	34	34	58	30		Jeshua	31	46	50	35	0	30	430
Neby Bulus	31	42	24	34	58	45		Beit Far	31	47	49	34	55	40	
Senasin	31	42	29	35	3	20		El Kau	31	47	24	34	59	8	
Beit Daras	31	43	42	34	40	59		Ruin	31	47	5	35	0	5	
Tel et Turmus	31	43	28	34	47	25		Abu Kabûs	31	47	29	35	0	25	1240
Neby Daud	31	43	35	34	51	32	600	Neby Yunas.....	31	48	47	34	38	51	
Moghullis.....	31	43	31	34	53	40	640	Beit Jiz	31	48	38	34	56	50	760
Ruin	31	43	10	34	54	30		Beit Susîn	31	48	14	34	58	28	910
Tel Keishûm	31	43	44	34	57	0	1150	Beshit	31	49	25	34	44	20	
Zelua Alia	31	43	2	34	58	45	1080	Kutrah	31	49	32	34	46	38	310
Jarash	31	43	15	35	0	17		Shameh	31	49	20	34	48	55	270
Village	31	43	45	35	3	55		Khuldah	31	49	5	34	54	8	650
Neby	31	44	21	34	37	55		Deir el Mohesein.....	31	49	35	34	55	46	690
Es Sawafir, 3	31	44	10	34	42	29		Um Ceriseh	31	49	30	34	56	40	
Kustineh	31	44	12	34	46	51	260	Latron	31	49	51	34	58	48	
Letineh	31	44	11	34	49	22		Khan Ebneh	31	50	30	34	42	38	
Kheimeh	31	44	43	34	49	48		Mughar	31	50	31	34	47	0	280
Esnibeh.....	31	44	16	34	51	18		Mansurah.....	31	50	12	34	51	40	
Amûreh	31	44	36	34	55	5	500	Saidon	31	50	30	34	54	12	620
Tibneh	31	44	34	34	55	30	740	Beit el Jemel	31	50	16	34	54	55	
El Bureij	31	44	17	34	55	38	770	Musa Thalia.....	31	50	28	34	55	45	870
Bîr el Lemon	31	44	55	34	56	33	650	Akir	31	51	27	34	49	18	260
El Jina	31	44	46	34	57	15		Ruin	31	51	59	34	52	40	
Eilîn	31	44	43	34	59	18	1230	Abu Shuseh	31	51	35	34	55	2	

Name.	Latitude.			Longitude.			Altitude.	Name.	Latitude.			Longitude.			Altitude.
	Deg.	Min.	Sec.	Deg.	Min.	Sec.	Feet.		Deg.	Min.	Sec.	Deg.	Min.	Sec.	Feet.
Wely Shuseh	31	51	43	34	55	18	850	Neby Rubin	31	55	29	34	42	32	
Kubab	31	51	53	34	57	10		Ramleh (Martyr							
Yebneh	31	52	14	34	44	32	170	Town)	31	55	21	34	52	1	
Nianeh	31	52	12	34	52	23	420	Jaffa	32	3	18	34	44	48	*
Zernuka	31	53	11	34	46	55	160	Jaffa	32	3	10	34	44	49	†
Kebu	31	53	52	34	46	13		Neby Samwel	31	49	50	35	10	45	
Neby Ghundeh	31	53	58	34	46	30		Tulil el Ful	31	49	15	35	13	50	
Yebneh Port	31	54	45	34	41	32									

* The longitudes of these observations depend upon that of Jaffa's highest house, obtained by Admiralty.

6th September, 1871.

CHAS. WARREN, Capt. R.E.

HISTORY OF THE HARAM ES SHERÍF.

BY E. H. PALMER, M.A.

(Continued from No. III.)

§ 6.—MOSAIC INSCRIPTION IN THE CUBBET ES SAKHRAH.

THE erection of the Cubbet es Sakhras, Jám'i el Aksa, and the restoration of the temple area by 'Abd el Melik, are recorded in a magnificent Kufic inscription in mosaic, running round the colonnade of the first-mentioned building. The name of 'Abd el Melik has been purposely erased, and that of Abdallah el Mamún fraudulently substituted; but the shortsighted forger has omitted to erase the date, as well as the name of the original founder, and the inscription still remains a contemporary record of the munificence of 'Abd el Melik. The translation is as follows:—

"In the name of God, the Merciful, the Compassionate! There is no god but God alone; He hath no partner; His is the kingdom, His the praise. He giveth life and death, for He is the Almighty. In the name of God, the Merciful, the Compassionate! There is no god but God alone; He hath no partner; Mohammed is the Apostle of God; pray God for him. The servant of God 'Abdallah, the Imám al Mamún [*read* 'Abd el Melik], Commander of the Faithful, built this dome in the year 72 (A.D. 691). May God accept it at his hands, and be content with him, Amen! The restoration is complete, and to God be the praise. In the name of God, the Merciful, the Compassionate! There is no god but God alone; He hath no partner. Say He is the one God, the Eternal; He neither begetteth nor is begotten, and there is no one like Him. Mohammed is the Apostle of God; pray God for him. In the name of God, the

* Highest house.

† Symond's trig. points.

Merciful, the Compassionate ! There is no god but God, and Mohammed is the Apostle of God ; pray God for him. Verily, God and His angels pray for the Prophet. Oh, ye who believe, pray for him, and salute ye him with salutations of peace. In the name of God, the Merciful, the Compassionate ! There is no god but God alone ; to Him be praise, who taketh not unto Himself a son, and to whom none can be a partner in His kingdom, and whose patron no lower creature can be ; magnify ye Him. Mohammed is the Apostle of God ; pray God, and His angels, and apostles for him ; and peace be upon him, and the mercy of God. In the name of God, the Merciful, the Compassionate ! There is no god but God alone ; He hath no partner ; His is the kingdom, and His the praise ; He giveth life and death, for He is Almighty. Verily, God and His angels pray for the Prophet. Oh ye who believe, pray for him, and salute him with salutations of peace. Oh ! ye who have received the Scriptures, exceed not the bounds in your religion, and speak not aught but truth concerning God. Verily, Jesus Christ, the son of Mary, is the Apostle of God, and His word which He cast over Mary, and a spirit from Him. Then believe in God and His apostles, and do not say there are three gods ; forbear, and it will be better for you. God is but One. Far be it from Him that He should have a son. To Him belongeth whatsoever is in the heaven and in the earth, and God is a sufficient protector. Christ doth not disdain to be a servant of God, nor do the angels who are near the throne. Whosoever then disdains His service, and is puffed up with pride, God shall gather them all at the last day. O God, pray for Thy apostle Jesus, the son of Mary ; peace be upon me the day I am born, and the day I die, and the day I am raised to life again. That is Jesus, the son of Mary, concerning whom ye doubt. It is not for God to take unto Himself a son ; far be it from Him. If He decree a thing, He doth but say unto it, Be, and it is. God is my Lord and yours. Serve Him, this is the right way. Glory to God, there is no god but He, and the angels, and beings endowed with knowledge, stand among the just. There is no God but He, the Mighty, the Wise. Verily, the true religion in the sight of God is Islám. Say praise be to God, who taketh not unto Himself a son ; whose partner in the kingdom none can be ; whose patron no lowly creature can be. Magnify ye Him !” *

§ 7.—WALÍD, SULEIMÁN, AND MEHDI.

‘Abd el Melik died on the 8th of September, 705 A.D., and was succeeded by his son Walíd. During that prince’s reign the eastern portion of the Masjid fell into ruins ; and as there were no funds in the

* This inscription, which is composed chiefly of Coranic texts, is interesting both from a historical point of view, and as showing the spirit in which Christianity was regarded by the Muslims of these early times. It has never before been published in its entirety. Its preservation during the subsequent Christian occupation of the city may occasion some surprise, as the Latins (by whom the Cubbet es Sakhras was turned into a church) could not but have been offended at quotations which so decidedly deny the Divinity of Christ and the doctrine of the Trinity. It is probable, however, that the Cufic character, in which it is written, was as unintelligible to the Christian natives of that time, as it is now, even to most of the learned Muslims of the present day.

treasury available for the purpose of restoring it, Walíd ordered the requisite amount to be levied from his subjects.

On the death of Walíd, the caliphate passed into the hands of his brother Suleimán, who was at Jerusalem when the messengers came to him to announce his accession to the throne.

He received them in the Masjid itself, sitting in one of the domes in the open court—probably in that now called Cubbet Suleimán, which is behind the Cubbet es Sakhráh, near the Báb ed Duweidáriyeh. He died at Jerusalem, after a short reign of three years, and was succeeded (A.D. 717) by ‘Omar ibn Abd el ‘Agíz, surnamed El Mehdí. It is related that this prince dismissed the Jews who had been hitherto employed in lighting up the sanctuary, and put in their places some of the slaves before-mentioned as having been purchased by ‘Abd el Melik, at the price of a fifth of the treasury (El Khums). One of these last came to the caliph, and begged him to emancipate him.

“I have no power to do so,” replied ‘Omar. “But look you, if you choose to go of your own accord, I claim no right over a single hair of your head.”*

In the reign of the second ‘Abbasside caliph, Abn Jaafer Mansúr (A.D. 755), a severe earthquake shook Jerusalem; and the southern portion of the Haram es Sheríf, standing as it did upon an artificially-raised platform, suffered most severely from the shock. In order to meet the expense of repairing the breaches thus made, the Caliph ordered the gold and silver plates, with which the munificence of ‘Abd el Melik had covered the doors of the Masjid, to be stripped off, converted into coin, and applied to the restoration of the edifice. The part restored was not, however, destined to last long; for during the reign of El Mehdí, his son and successor, the mosque had again fallen into ruins, and was rebuilt by the Caliph upon a different plan, the width being increased at the expense of the length.

The foundation, by the Caliph Mansúr, of the imperial city of Baghdád, upon the banks of the Tigris, and the removal of the government from Damascus thither, was very prejudicial to the interests of the Christian population of Syria, who were now treated with great harshness, deprived of the privileges granted them by former monarchs, and subjected to every form of extortion and persecution.

* The following extract from Reynolds's “Temple of Jerusalem,” purporting to be a translation of this passage, will, I hope, excuse me from again quoting or referring to that *valuable work*:—“The Jews purveyed the furniture (necessaries) for the temple, but when Omar-Rudh-Ullah-anhu-ibu—Abdul Aziz—ascended the throne, he dismissed them, and placed therein some of the tribe of Khims (of Arabia Felix). And then came to him a man of the family of Khims, and said unto him, ‘Give me some present.’ But he said, ‘How can I give thee? for if thou shouldst strain thine eyes in staring, I have not a single one of thy dog’s hairs (to give).’”

And this astounding display of ignorance was “published under the auspices of the Oriental Translation Fund of Great Britain and Ireland!”

§ 8.—HARÚN ER RASHÍD.

In 786 the celebrated Harún er Rashíd, familiar to us as the hero of the "Arabian Nights," succeeded his father, El Hadí, in the caliphate.

This prince was illustrious alike for his military successes, and his munificent patronage of learning and science; and although his glory is sullied by one act of barbarity and jealous meanness—the murder of his friend and minister, Jaafa el Barmaki, and the whole of the Barmecide family—he seems to have well merited his title of Er Rashíd, "the Orthodox," or "Upright."

The cordial relations between the East and West, brought about by his alliance with the Emperor Charlemagne, were productive of much good to the Christian community in Syria and Palestine, and more especially in Jerusalem, where churches were restored, and hospices and other charitable institutions founded, by the munificence of the Frank emperor.

In the year 796 new and unexpected troubles came upon Palestine. A civil war broke out between two of the border-tribes—the Beni Yuktàn and the Ismaelújeh,—and the country was devastated by hordes of savage Bedawín. The towns and villages of the west were sacked, the roads were rendered impassable by hostile bands, and those places which had not actually suffered from the incursions of the barbarians were reduced to a state of protracted siege. Even Jerusalem itself was threatened, and, but for the bravery of its garrison, would have again been pillaged and destroyed. The monasteries in the Jordan valley experienced the brunt of the Arabs' attack, and one after another was sacked; and, last of all, that of Már Saba—which, from its position, had hitherto been deemed impregnable—succumbed to a blockade, and many of the inmates perished.

§ 9. EL MAMUN.

On the death of Harún, his three sons contended fiercely for the throne; the Mussulman empire was again involved in civil dissensions, and Palestine, as usual, suffered most severely in the wars. The churches and monasteries in and around Jerusalem were again laid waste, and the great mass of the Christian population obliged to seek safety in flight.

El Mamún having at last triumphed over his brothers, and established himself firmly in the caliphate, applied his energies with great ardour to the cultivation of literature, art, and science. It was at his expense, and by his orders, that the works of the Greek philosophers were translated into the Arabic language by 'Abd el Messiah el Kendí, who, although a Christian by birth and profession, enjoyed a great reputation at the Court of Baghdád, where he was honoured with the title of Feilsúf el Islam—"The Philosopher of Mohammedanism."

Since their establishment on the banks of the Tigris, the Abasside

caliphs had departed widely from the ancient traditions of their race; and the warlike ardour and stern simplicity which had won so vast an empire for 'Omar and his contemporaries, presently gave way to effeminate luxury and useless extravagance. But although this change was gradually undermining their power, and tending to the physical degeneracy of the race, it was not unproductive of good; and the immense riches and careless liberality of the caliphs attracted to the Court of Baghdád the learned men of the Eastern world. The Arabs were not an inventive, but they were eminently an acquisitive people, and,

“*Græcia capta ferum victorem cepit,*”

the nations conquered by their arms were made to yield up intellectual as well as material spoils. They had neither art, literature, nor science of themselves, and yet we are indebted to them for all three; for what others produced and neglected, they seized upon and made their own. Born in the black, shapeless “tents of Shem,” and nursed amidst monotonous scenery, the Arabs could conceive no grander structure than the massive tetragonal Kadbeh; but Persia was made to supply them with the graceful forms and harmonious colours suggested by the flower-gardens of Iran.* The art of painting, cultivated with so much success in Persia, even at the present day, found but little favour with the iconoclast followers of Mohammed; but its influence is seen in the perfection to which mural decoration, writing, and illumination have been brought by the professors of Islam. Calligraphy has been cultivated in the East to an extent which can be scarcely conceived in this country; and the rules which govern that science are, though more precise, founded on æsthetic principles as correct as those of fine-art criticism here.

A people whose hereditary occupation was war and plunder, and who looked upon commerce as a degrading and slavish pursuit, were not likely to make much progress, even in simple arithmetic; yet when it was no longer a mere question of dividing the spoils of a caravan, but of administering the revenues and regulating the frontiers of conquered countries, then the Saracens both appreciated and employed the exact mathematical sciences of India.

“The Arabs’ registers are the verses of their bards,” was the motto of their Bedawín forefathers, but the rude lays of border-warfare and pastoral life were soon found unsuited to their more refined ideas; while even the cultivation of their own rich and complex language was insufficient to satisfy their literary taste and craving for intellectual exercise. Persia therefore was again called in to their aid, and the rich treasures of historical and legendary lore were ransacked and laid

* Nearly all the technical terms used in Arab architecture are Persian, an additional proof that the so-called Saracenic style is of foreign and not native origin.

bare, while, later on, the philosophy and speculative science of the Greeks were eagerly sought after and studied.

Jerusalem also profited by Mamún's peaceful rule and æsthetic tastes, and the Haram buildings were thoroughly restored. So completely was this done that the Masjid may be almost said to owe its present existence to El Mamún; for had it not been for his care and munificence, it must have fallen into irreparable decay. I have already mentioned the substitution of El Mamún's name for that of the original founder, 'Abd el Melik, in the mosaic inscription upon the colonnade of the Cubbet es Sakhrá; inscriptions, implying the same wilful misstatement of facts, are found upon large copperplates fastened over the doors of the last-named building. Upon these we read, after the usual pious invocations and texts, the following words:—"Constructed by order of the servant of God, 'Abdallah el Mamún, Commander of the Faithful, whose life may God prolong! during the government of the brother of the Commander of the Faithful, Er Rashíd, whom God preserve! Executed by Sáleh ibn Yahyah, one of the slaves of the Commander of the Faithful, in the month of Rabí el Akhir, in the year 216." (May, A.D. 831.) It is inconceivable that so liberal and intellectual a prince should have sanctioned such an arrogant and transparent fiction; and we can only attribute the mis-statement to the servile adulation of the officials entrusted with the carrying out of the restorations.

The Christian patriarch Thomas now sought for an opportunity to restore the ruined Church of the Holy Sepulchre, and the occasion was not long wanting. One of those great plagues of locusts, which from time to time devastate Jerusalem, had just visited the city; the crops entirely failed in consequence of their depredations, and as a famine appeared imminent, every Mohammedan who could afford to do so quitted the city, with his family and household effects, until a more convenient season. Thus secured from interruption, the patriarch proceeded to put his plan into execution, and aided by the contributions of a wealthy Egyptian named Bocam, set about rebuilding the church. The Muslims, on their return, were astonished and annoyed to find that the Christian temple had risen again from its ruins with such magnificent proportions that the newly-restored glories of their own Masjid were quite thrown into the shade. The patriarch Thomas and other ecclesiastical dignitaries were accused of a contravention of the treaty under which they enjoyed their immunities and privileges, and were thrown into prison pending the inquiry. The principal charge against them, and one which embodied the whole cause of complaint, was that the dome of the Church of the Holy Sepulchre overtopped that of the Cubbet es Sakhrá. By a miserable subterfuge, suggested, it is said, by a Mohammedan inhabitant of Jerusalem, the patriarch threw the onus of proof upon his accusers, and declared that his dome had been restored exactly upon the original plan, and that the dimensions of the former one had been rigidly observed. This deliberate falsehood the

Mohammedans were unable to disprove, notwithstanding the direct evidence of their senses to the contrary, and the prisoners were perforce set at liberty, and the charge abandoned. Equity, either in its technical or ordinary sense, is not a distinguishing characteristic of Muslim law-courts, but in this case no one suffered by the omission but themselves.

Mamún's brother, El Mo'tasim Billah, succeeded him upon the throne. In the year 842 a fanatical chieftain, named Temím Abn Hareb, headed a large army of desperadoes, and, after some temporary successes in Syria, made himself master of Jerusalem. The churches and other Christian edifices were only saved from destruction on the payment of a large ransom by the patriarch; after receiving which, the insurgents vacated the city, and were shortly afterwards entirely defeated by the caliph's forces.

A wonderful story is told of the great earthquake which took place in the year 846 A.D.; namely, that in the night the guards of the Cubbet es Sakhras were suddenly astonished to find the dome itself displaced, so that they could see the stars and feel the rain splashing upon their faces. Then they heard a low voice saying, "Gently, put it straight again," and gradually it settled down into its ordinary state.

(*To be continued.*)

AMERICAN EXPLORERS IN PALESTINE.*

THE first impulse towards the exploration of Palestine, in recent times, was given by Dr. Edward Robinson in 1838. Dr. Robinson went through the Holy Land, not as a mere traveller making notes of his passing observations, but as a student of Biblical History and Antiquities making researches upon a well-defined method, with the scientific motive of preparing a work on Biblical Geography. He had fitted himself for the journey by the special studies of fifteen years, had mastered the whole literature of his subject, and had mapped out distinctly the points of inquiry which previous travellers had left undetermined. But he had also qualifications for his task such as are seldom combined in any one man;—a discriminating judgment, a retentive memory, comprehensive and well-digested knowledge, accurate powers of observation, the habit of patient and cautious investigation, and a rare faculty of common sense in sifting facts and weighing evidence. The most eminent geographers of Europe at once recognised the great value of Dr. Robinson's researches in a geographical point of view; but controversy was awakened by his opinion touching the Church of the Holy Sepulchre and other places of reputed sanctity, and by his broad canon of historical research—

* From the *Quarterly Statement* of the American Exploration Society, No. 1.

"that all ecclesiastical tradition respecting the sacred places in and around Jerusalem and throughout Palestine is of no value, except so far as it is supported by circumstances known to us from the Scriptures, or from other contemporary history." Next to the testimony of the Scriptures and of Josephus, Dr. Robinson gave importance to the preservation of the ancient names of places among the common people. In this branch of inquiry he had the invaluable aid of Dr. Eli Smith, a master of the language and the character of the Arabs, and an acute and careful observer.

The researches of 1838 were followed by a second journey of Dr. Robinson in 1852. In the meantime the greater part of his identifications of disputed sites in Palestine and the region of Sinai had been accepted by travellers and scholars, and his estimate of tradition, though it disturbed many cherished associations, had come to be regarded as founded in reason. All subsequent writers upon the Holy Land who are entitled to any consideration have profited by Dr. Robinson's "Biblical Researches;" and these remain to this day the great storehouse of information upon the geography of Palestine—his projected work on the Physical and Historical Geography of the Holy Land not having been completed at the time of his death.

But Dr. Robinson was not equipped for a thoroughly scientific exploration of the Holy Land. He went at his own charges, having but a single companion, with few instruments, and no trained assistants for a proper survey. He opened the way to a scientific exploration, provided sound instructions and positive data for others; but he himself reported that "there yet remained much land to be possessed."

In 1848, Lieutenant Lynch and his party made a scientific examination of the Dead Sea, so careful, thorough, and complete, that the official report of the United States Expedition under his command has become the standard authority upon that anomalous feature of Palestine.

The publication of "The Land and the Book," by Dr. W. M. Thomson, in 1859, while it added much to our knowledge of Biblical localities in Palestine, popularised the illustration of the Bible from the natural scenery and history of the Holy Land, and from the manners and customs of its inhabitants.

Dr. Barclay's "City of the Great King," published in 1858, made some substantial additions to our knowledge of the topography of Jerusalem; Mr. Osborn's "Palestine, Past and Present," 1859, was a contribution to the natural history and the cartography of the Holy Land; Professor Hackett's "Illustrations of Scripture," published in 1860, gave a lifelike tone to many passages of the word of God from the natural phenomena and the social customs of Palestine; and other Americans, travellers and missionaries, have enriched our literature with journals, reports, and monographs upon the same fruitful theme.

We do not here speak of the obligations of Biblical science to explorers from other nations,—English, French, German, Dutch, Rus-

sian,—who have followed in the path opened by Robinson; for the object of this brief paragraph is not to give a *résumé* of modern explorations in Palestine, but to recall Americans to their duty in a field where their own countrymen were pioneers, and where American scholarship and enterprise have won such distinguished merit. If of late years we have suffered France, Germany, and especially England, to lead us, their successes should stimulate us to an honourable rivalry for a precedence that was once fairly American.

The appeal lately made to the public spirit and national pride of Great Britain concerning maritime discovery and survey applies with equal force to Americans concerning explorations in the Holy Land. "We fear," says "Nature," "that if we do not bestir ourselves, the credit which has been won by British scientific enterprise will pass elsewhere. Having shown other nations the way to the treasures of knowledge which lie hid in the recesses of the ocean, we are falling from the van into the rear, and leaving our rivals to gather everything up. Is this fair to the eminent men who have freely given their best services to the nation, and obtained for it a glorious scientific victory? If their success is regarded by other countries as so distinguished that they are vying with each other for a participation in it, surely we ought at least to *hold our own*."

NOTE ON M. GANNEAU'S DISCOVERY OF AN INSCRIBED STONE OF THE TEMPLE OF JERU- SALEM.

THE inscription found by M. Ganneau threatens the penalty of death against those who violate the regulation; the passage which he quotes from Josephus does not threaten this penalty, but reads thus: "When you pass through these cloisters unto the second temple, there was a balustrade of stone all round, whose height was three cubits; its construction was very elegant; upon it stood pillars, at equal distances, declaring the law of purity, some in Greek letters, some in Roman, that no foreigner should go within that sanctuary."—Bell. Jud. v. v. 2.

Upon this M. Ganneau remarks: "Il est à noter que Josèphe ne parle pas du sort tragique dont est menacé celui qui violerait le règlement: ce silence est certainement intentionnel," &c., &c., going on through an entire paragraph to show why Josephus says nothing of the penalty of death.

Permit me to point out that the agreement between the text of Josephus and the stone just found is closer than M. Ganneau perceives. He has overlooked a passage in the "Antiquities," which reads as follows:—"Thus was the first enclosure; in the midst of which and not far from it was the second, to be gone up to by a few steps. This was encompassed by a stone balustrade for a fence, with an inscription

which forbade any foreigner to go in *under pain of death*."—Ant. xv. xi. 5.

But this passage from the "Antiquities" will lend fresh support to M. Ganneau in his previous statement: "Les rapports sont frappants entre ce texte et notre inscription; les expressions mêmes et les formes sont similaires." As the equivalent of *μηθένα ἀλλογενή* on the newly-discovered stone, he may now quote *τὸν ἀλλοεθνῇ* from the "Antiquities," as well as *μηδεῖν ἀλλόφυλον* from the "Wars;" and while the stone says *τὸν περι τὸ ἱερὸν τρύφακτος*, and the "Wars" gives the corresponding expression *τὸ δεύτερον ἱερὸν δρυφάκτος περιβέβλητο λίθινος*, we have in the "Antiquities" *δεύτερος (περίβολος), ὃν περιείχε ἑρκίον λεθίνου δρυφάκτον*; and, lastly, for *τὸ ἐξακολουθεῖν θάνατον* of the inscription, we have *θανατικῆς ἀπειλουμένης τῆς ζημίας* in the "Antiquities." But the chief use of this parallel passage from the "Antiquities" is to show that, since it is differently worded from the passage in the "Wars," Josephus had no intention of giving us the exact phraseology of the inscription, but only the sense; and therefore, that the *stèle* should give the sense of Josephus without his exact words is just what was to be looked for in such a discovery.

GEORGE ST. CLAIR.

INSCRIPTIONS DISCOVERED AT HAMATH IN NORTHERN SYRIA.*

BY J. AUGUSTUS JOHNSON, LATE U. S. CONSUL-GENERAL AT
BEYROUT.

THE discovery of the "Moabite Stone" has stimulated the curiosity of Orientalists and Bible readers, and has naturally called the attention of explorers to the districts east of the Jordan. But there is another district, too long overlooked, which, it is believed, will repay a careful examination.

Hamath, on the northern border of the "Promised Land," was the capital of a kingdom at the Exodus; its king, Toi, yielded allegiance to King David (2 Sam. viii. 9); it was called "great" by Amos (vi. 2), and was spoken of by an Assyrian monarch as among the most celebrated of his conquests (2 Kings xviii. 34). It was originally the residence of Canaanites (Gen. x. 18), and is frequently mentioned as the extreme limit of the Holy Land towards the north. Hamath, as it is now called, has at present a population of about 30,000 inhabitants.

While looking through the bazaar of this old town, in 1870, with the Rev. S. Jessup, of the Syria Mission, we came upon a stone in the corner of a house which contained an inscription in unknown characters. We did not succeed in getting squeeze-impressions, for fanatical

* From *Quarterly Statement*, No. 1, of the American Exploration Society. /

Moslems crowded upon us when we began to work upon the stone and we were obliged to be content with such copies of this and other inscriptions subsequently found on stones over and near the city gate, and in the ancient bridge which spans the Orontes, as could be obtained by the aid of a native painter. In this we were greatly aided by Mr. Jessup, and by Mr. F. Bambino, of the French Consulate, who pronounced the copies to be accurate. Mr. Jessup endeavoured to purchase a blue stone containing two lines of these strange characters, but failed to obtain it because of the tradition connected with, and the income derived from it. Deformed persons were willing to pay for the privilege of lying upon it in the hope of a speedy cure, as it was believed to be efficacious in spinal diseases.

We should naturally expect to find in this vicinity some trace of the Assyrian and Egyptian conquerors who have ravaged the valley of the Orontes, and of their struggles with the Hittites on this ancient battlefield, and of Solomon, who built stone cities in Hamath (2 Chron. viii. 4), of which Palmyra was one. But we find nothing of the Palmyrene on these stones. The arrow-headed characters are suggestive of Assournasirpal. In the inscription on the monolith of Nimroud, preserved in the British Museum, in relating his exploits 915 B.C., he says: "In this time I took the environs of Mt. Lebanon. I went towards the great sea of Phœnicia. . . . I received tributes from . . . Tyre, Sidon, &c. . . . They humbled themselves before me." And a little later, 879—8 B.C., Salmanazar V. says: "In my twenty-first campaign I crossed the Euphrates for the twenty-first time; I marched towards the cities of Hazael, of Damascus. I received the tributes of Tyre, Sidon, and Gebal."

Until the interpretation of these mysterious characters shall be given, a wide field is open to conjecture. Alphabetic writing was in use 1500 B.C., but the germs of the alphabetic system were found in the hieroglyphic and hieratic writing of the Egyptians, upwards of 2000 B.C. Some of the attempts at picture-writing on these Hamath stones suggest the Egyptian system, which consists of a certain number of figures to express letters or syllables, and a vast number of ideographic or symbolic forms to represent words. Other characters represent Phœnician letters and numerals not unlike the Phœnician writing on the foundation stones of the Temple at Jerusalem, recently deciphered by M. Deutsch, of the British Museum.

In framing their alphabet the Phœnicians adopted the same process previously employed in the Egyptian phonetic system, by taking the first letter of the name of the object chosen to represent each sound; as, A, for aleph (a bull); B, for beth (a house); G, for ghimel (a camel); in the same manner as the Egyptians represented A, by an eagle, *akhem*; M, by an owl, *moulag*, &c.

Some scholars have designated Babylonia as the true mother of the characters employed in very ancient times in Syria and Mesopotamia. And it appears that besides the cuneiform writing found on Assyrian

and Babylonian monuments, a cursive character was also employed, identical with the Phœnician, and therefore possibly borrowed by the latter. Kenrick, however, remarks on this theory, that the occurrence of these characters only proves the intercourse between the two people, and not that the cuneiform was the parent of the Phœnician. We have in these inscriptions of Hamath a melange of all three, and perhaps a connecting link between the earliest systems. To suppose them to be bi-lingual or tri-lingual only increases the difficulty of interpretation in this case, for there is not enough of either to furnish a clue to the rest.

The "Carpentras Stone" contains an analogous inscription; it comes near to the Phœnician, and has been thought to present the most ancient specimen of the Aramean series. This and the Palmyrene writing form the links between the coin characters and the square characters, and are supposed to represent a language in a state of transition. That the Hebrews borrowed the use of writing from Mesopotamia or Phœnicia has been universally admitted; and, according to Gesenius, the old form of their writing was derived from the Phœnician, and retained by the Samaritans after the Jews had adopted another character of Aramaic origin.

Now may it not be that in these Hamath inscriptions we have fallen upon a transition period, when the Phœnicians, or their predecessors in the land, were using the elements of writing then in existence, and before the regular and simple Phœnician alphabet had been perfected?

The "Carpentras Stone" has been considered by Gesenius to have been executed by a Syrian of the Seleucidian period. The "Rosetta Stone" dates back to 193 B.C. The characters on these stones have much in common with those of Hamath. "Champollion's Key to the Hieroglyphics" will be of aid perhaps in solving the present mystery. But we shall be surprised if the inscriptions of Hamath do not prove to be older and of greater interest than any recent discovery of Egypto-Aramean or hieroglyphic characters.

Mr. E. H. Palmer saw our copies at Beyrout, while on his way from an exploring tour in the Desert of Tih. He was so persuaded of their archæological importance, that he induced the British Society to send Mr. Tyrwhitt Drake to Syria, to obtain squeeze-impressions and photographs of all these and any other similar inscriptions. His report will be looked for with great interest. In the last number of the *Journal of the American Oriental Society*, it is stated that Mr. Palmer has already found in a Syrian MS. lying in the University of Cambridge, other copies of these Hamath inscriptions. They are said to be imperfect. We do not learn, however, that the Syrian MS. has been translated, or that any theory of interpretation has been advanced. Dr. Eisenlohr, Professor of Egyptology at the University of Heidelberg, in a letter asking permission to publish these inscriptions in Germany, says: "Though I believe we are at present not able to give a translation of these inscriptions, I am still persuaded they will be of the highest interest for the scientific world, because they are a specimen of the first manner of writing of the people of that country."

These inscriptions, and the bas-reliefs on the monument called Kamua Hurmûl, in Cœlo-Syria, near the source of the Orontes, and possibly of the same period, are an enigma, as yet, to the most learned Orientalists. It is to be hoped, however, now that attention is again called to the subject, that the clue may be found that shall unlock their meaning, and that Northern Syria will be no longer overlooked by the explorer.

DISCOVERY AT THE MOSQUE EL AKSA, JERUSALEM.*

A DISCOVERY of considerable interest has been made in this Mosque by the Rev. J. Neil, who has only recently gone to Jerusalem for the Society for the Conversion of the Jews. "In the Mosque of El Aksa," he writes, "you will remember that there is a long plain room opening out at the south-east angle, called the Mosque of Omar, in which the only object of interest whatever is a recess supported by two twisted pillars, and called the Mihrab, or Praying-place of Omar. You may, perhaps, remember that the pillars on each side of this recess, of Solomonic twisted pattern and polished marble, appear to have been turned upside down, and to have their capitals of greyish stone in broken leaf-like patterns below. On visiting this the day before yesterday, July 5th, I discovered that a great part of the yellowish plaster had been removed from the top of these pillars, and that rich grotesquely carved capitals were exposed to view in an admirable state of preservation. These capitals, though pressing behind against the wall, are carved on all the four sides. The Sheikh of the temple told me this was first seen about two days before my visit, while cleaning the wall. The sketches I send are shamefully rough, but I have no idea of drawing: they were made by myself from still rougher sketches."

These drawings are at the office of the Palestine Exploration Fund, 9, Pall Mall East, where they have been sent by the Rev. F. Smith, to whom Mr. Neil was writing.

ON THE RELATIONS OF CANAANITE EXPLORATION TO PRE-HISTORIC CLASSIC ARCHÆOLOGY.

BY HYDE CLARKE.

IN a late paper in the Journal of the Palestine Exploration Fund, I showed, on the evidence of the river names of Palestine, what was the connection of the Canaanite population with general history, and I called the attention of investigators to the probability of discovering pre-Israelite monuments and relics. As an effort is now being made

* Reprinted, by kind permission of the editor, from the *Athenæum*.

on the part of the Fund to extend the range of exploration by another expedition, it has appeared to me desirable to show more fully how, beyond the special Israelitic and local investigation, such an expedition may extend the domain of Biblical inquiry into earlier epochs of research, and assist pre-historic studies in their widest relations.

Thus, independent of the particular interest which gives the expedition so strong a claim to support, it must, if provided with adequate funds, and if the explorations be carried deep enough, throw light on those very departments of Western archæology which are now the most obscure, including Lycian, Lydian, Phrygian, Proto-Hellenic, and Etruscan. On the other side, it may render very valuable service to Assyrian and Indian researches. The reason of this lies in the peculiar position of Canaan in relation to the study of the ancient world, which gives it exceptional importance as a means of defining unsettled questions of archæology elsewhere.

The facts that were given in the previous paper as to river names were few, but they were conclusive in showing that Canaan belonged to the general system of ancient geographical nomenclature, prior to the Semitic and Aryan terminology. They pointed out that there was one great empire of the world, which was Caucasian, that empire having its capital in the plains of Shimar, and it enabled us to ascertain the unsuspected extent of that empire, which reached to the Egyptian border, included the North African coast, all Europe south of the Baltic, the countries between the Caspian and the Aral, and then passing along the Himalayas, embraced Further and Hither India.

The river names did not supply the whole of the evidence, but they afforded for a popular purpose sufficient materials of a well-defined character, and which can be more easily dealt with.

There is another class of local names much more numerous, and those are the ancient town names. These are scattered over many authors, and transliterated by Greeks of several dialects and by Romans. There is, however, one great group, the town names of Canaan, transliterated by Israelites, and to be found in one most ancient record, the historical books of the Bible. Of these more in detail.

Another class, but one more difficult to deal with in the present state of our knowledge, consists of the mythological, heroic, and kingly names. These are constituted on conformable principles, and chiefly on certain recognisable roots. Here again the Bible is our great treasury of knowledge. These materials will throw a light on the germs of history in Greece generally referred to a Phœnician explanation, for which, after all, we have not the materials.

The sources already referred to illustrate the language of the epoch, which was Caucasian. I have lately pointed out that it is by Caucasian we are to explain some remarkable names in the dynasty of Saul, Mephi Bosheth, Ish Bosheth, Esh Baal, Merab, Merib Baal, Malchi Shua. To these may be added Ishbi Benob, Samachonitis (referred to

in the river names), and possibly Gomorrah (*Chiruæra* of Lycia). The results of a comparison of the scanty vocabulary of Lycian, Lydian, Phrygian, Thracian, and Etruscan, all tend in one direction to the relationship of these "barbarous" languages of the ancient world, other than Hispano-Iberian, to the Caucasian. For the modern Caucasian vocabulary we have copious materials in the several languages now spoken, besides the old MSS. of Caucasian. A possible source of further supplies is in cuneiform.

The field of Caucasian exploration includes within it, therefore, as already stated, those most interesting regions of Asia Minor, Greece, and Etruria, and there must be comparison of populations, of monuments, and of antiquities. With regard to population, the relationship of that of Etruria with the East must have been palpable in the features of the people, as indeed we are able to recognise them in their sculpture and in their paintings, but an uncertain indication of Herodotus has baffled the identification. There is a resemblance of features between the Etruscans and the Armenians, but there is none in language; and for this reason, that the ancient language of the Armenians was not as now Indo-European, or Aryan, but Caucasian: It is Canaan, if properly explored, which will yield us the means of defining the Etruscan and all the archaic monuments and relics of Hellas, of the isles, and of the Asiatic peninsula.

It is with a view of strengthening the chain of evidence that attention is now directed to the town names of Palestine. These, down to the end of Chronicles, are about four hundred in number. It is possible that some Hebrew names may be embraced in the list, but exact identification is not yet possible, and a casual error is of no immediate importance.

The first step is to arrange these names, as far as may be, according to their roots, and it will be seen that they thus fall into a smaller number of classes than might be supposed, and into distinct classes. For the purpose of comparison with the archæological regions referred to, the corresponding names are classified in four groups:—1. Asia Minor, including Armenia, and with Caucasia, Crete, Cyprus, and the Asiatic islands; 2nd. Greece, with the northern regions, including Thrace and Illyria, and with the Greek islands; 3rd. Italy, with Istria, Sicily, Sardinia, and Corsica; 4th. Spain, with the Balearic Isles.

The names here given do not constitute the full list, but they are given copiously, because the cases of identity are numerous and striking, and if a few only were given they might be suspected to be merely casual coincidences or freaks of language, such as may be picked out from the most discordant languages. Here it is not so, and careful examination will show that the results must be true and what they ought to be.

PALESTINE.	ASIA MINOR, &c.	GREECE, &c.	ITALY, &c.	SPAIN.
MRS Mosera	Masora, Capp. Arm.	...	Mazara, Sicily	
Moseroth ...	Masera „			
„	Mazuri, Pamph.			
• Moresbeth	Marathusa, Crete...	Mursinos, Elis ...	Merusium, Sicily	
Mareshah				
Sharaim ...	Seramana, Pontus			
Rameses ...	Seramusa, Paph. ...	...	Krimisa, Brut.	
„	Sormasa, Pisidia			
Shamir	Zimara, Capp. Arm.	Ismara, Thrace		
Shinron ...	Ismara „			
Zemarain ...	Sismara, Arm. Min.			
Samaria ...	Eusemara „			
„	Azamara, Capp.			
MRD Rithmeh ...	Rithumna, Crete...	Kardamule, Lacc.	Eretma, Sab. ...	Kertima, Tar.
Ramath	Harmathus, Troad.	...	...	Myrtilis, Lusit.
Maarath ...	Marathus, Crete ...	Maratha, Arcadia	Maruvium, Sub.	
„	Marathesium, Ionia	„ Phocis		
„	...	Marathon, Attica		
Tamar .....	...	Tmarus, Epeirus		
„	...	Thimarum, Thes.		
„	...	Domerus, Maced.		
MD Etham .....	...	Ithome, Thessaly		
Edom				
Amad	Amida, Armen. ...	Amathia, Maced.	Amantia, Brut.	
Hamath ...	Amathus, Cyprus	Amathus, Lacon.		
„	Madia, Colchis			
MDN Temani ...	Timena, Paph. ...	Taminae, Eubæa		
Dimonah ...	Timonitis	Idomene, Acarn.		
„	Domana, Pontus ...	„ Maced.		
Timnath ...	Tumnos, Caria			
„	Tumna, Arm. Min.			
„	Temnos, Mysia			
Thimnathah	Thymnias, Caria.			
Madon	Methymna, Lesbos	Methone, Maced.	Matinum, It. ...	Meidunium, Tar.
„	„ Crete	„ Thes.	Mutina, Gal. Cis.	
Middin	Midaion, Phrygia...	„ Mess.		
„	...	„ Argolis		
„	...	Medeon, Acarn.		
„	...	„ Phocis		
MKB Gebim .....	...	...	Gabii, Lat.	
MKD Mithcah ..	Medokia, Capp. ...	...	Motyca, Sicily	
Metheg .....	...	...	Modikia, Liguria	
Dumoh	Tumia, Pontus ...	Dyme, Thrace		
„	...	„ Achaia		
MDS Shittim	Sidyra, Lycia ...	Sadamis, Thrace		
Ziddim				

PALESTINE.	ASIA MINOR, &C.	GREECE, &C.	ITALY, &C	SPAIN.
MDS Sodom				
MDB Medeba .....	...	Metapa, Ætolia		
MDL Adullam ...	Delemna, Capp.			
Telem	Telmissus, Lycia ...	Thalamæ, Lac.	Telamo, Etr. ...	Adellum, Tar.
"	...	...	...	Talamina, Tar.
Moladah ...	Melitara, Phrygia	Melitæa, Thessaly	Meltanum, Etr.	
"	Miletus, Caria	Melita, Illyria ...		
"	" Crete			
"	Melita, Arm. Min.	Melitonos, Mace.		
"	Ameletus, Pontus			
Alameth ...	Kalamude, Crete			
MNR Rimmon ...	Armone, Paph. ...	Rhamnus, Attica	Ariminium, Um.	
"	Ramnous, Crete ...	Orminium, Thes.		
"	Hermonassa, Pont.	Armenium, Thes.		
"	...	Hermione, Arg.		
Nimrah ...	Anemurium, Cilicia			
Shimron ...	Smyrna, Lydia			
"	Samorna, Ephesus			
MNL Zalmoneh ...	Salamis, Cyprus ...	Salmone, Elis. ...	Sulmo, Sabin. ...	Salmantika, Lus.
"	Salmalassus, Arm.	Salamis, I.		
Almon	Lemnos, I. ....	...	Almine, Etrur.	Laminium, Tar.
Lahman ...	Limena, Cyprus ...	Leimone, Thes.		
MN Madmannah	Medmasa, Caria.			
"	Methymna, Lesbos			
"	" Crete			
MNS Azmon	Somena, Lycia .....	...	Kasmena, Sicily	
Heshmon				
MKS Massah	Amasea, Pontus ...	Messa	Massa, Etruria	
Mozah	Mazaka, Caph.			
"	Mosega, Albania			
Makaz	Mokisos, Caph. ...	Mukos, Phocis ..	...	Mago, Boëtica.
"	Ammokhostos, Cyp.	Makistos, Elis		
"		Mokasura, Thrace		
Shahizimah				
Gimza	Kamisa, Capp. ....	...	...	Segisama, Tar.
Chemosh				
MS Shema	Samos, I.	Same, Cephallen		
Azem	Zama, Capp.			
Ezom	Syme, I.	Oisume, Maced.		
MBS Mizpah	Messaba, Caria	Messapia, Lakou		
"	...	" Locris		
"	...	Messapium, Bœo.		
Shebam	Sabus, Capp. Arm.	...	Sabium, Gal. Cis.	
Shepham ...	Sapha .....	...	...	Aspavia, Boët.
Sibmah	Siva, Capp.	Siphai, Boët.		
MKR Carmel	Carmala, Capp. Ar.	...	...	Karme, Lus.

PALESTINE.	ASIA MINOR, &c.	GREECE, &c.	ITALY, &c.	SPAIN.
MKR Karem	Karima, Galatia ...	Kromi, Arcad.		
Horeni	Korium, Crete	Hyrmine, Elis		
Hormah ...	Germa, Galatia ...	Harma, Bœot.		
„	Karmasa	Hermione, Argol.		
Gomorrah ...	Khimæra, Lycia ...	Chimæra, Epeirus		
„	Cameira, Rhodes ...	...	Camarinum, Umb	
„	Commoris, Cilicia ...	Comaros, Epeirus		
Rekem	Arkhamā, Capp. ...	Orkhomenos, Bœo		
„	Rhegma, Cilicia ...	„ Arcadia		
Machir	Mogara, Pontus ...	Megara, Megar...	Megara, Sicily	
Mechirath...	Makrasa, Lydia			
Mearah .....	...	...	Himera, Sicily	
MKL Lakum	Lagine, Caria	Alagonia, Lacon.	Luka	Leukiana, Lus.
Gamala .....	...	Homelo, Thess.	...	Lakonimurium, Etr.
Gallim .....	...	Halimona, Attic.	...	Okelum, Lus., Bœot.
MLS Salem.....	Salamis, Cyprus ...	Salamis, I.	Sulmo, Sabin.	
Shalem	Salmalassus, Arm.	Selymbria, Thre.	„ Latium	
Shillim				
Zalmon Mt.	Soluma, Lycia	Salmone, Elis ...	...	Salmuka, Tar.
Leshem	Klazomenæ, Lydia.			
Mashal	Mesaleme, Pontus			
MR Ramah	Rhegma, Cilicia ...	Rhamæ, Thrace	Roma, Latium	
Arumah.....	Aroma, } Caria	Rhamnos, Attic.	Ariminium, Umb	
Rumah	Aromata, }			
„	Arkhamā, Capp.			
ML Millo	Mallos, Cilicia	Mulai, Thessaly		
„	Mala, Colchis	Amilos, Arcadia	Meles, Sabin. ...	Malia, Tar.
„	...	Melos, I.		
Helam	Alamai, Albania ...	Malaia, Arcadia	Lumo, Liguria	
„	...	...	Lumellum, G. Cis.	
BRD Bered.....	Baratta, Lycaonia .	...	Beretra, Picen	
Beeroth	Perta, Phrygia ...	Sparta, Laconia	Burderate, Ligur.	
Pirathon ...	Phreata, Caph. ...	Peraithois, Arca.	Veretum, Apulia	Spartavia, Tar.
Kibroth ...	Barta, Pontus	Eupuridai, Attica		
Daberoth ...	...	Doberos, Maced.		
Debir	Dabara, Caria .....	...	...	Roboretum, Tar.
Taberah.....	Tapura, Arm. Min.			
Lodebir	Davara, Capp. ....	...	...	Litabrum, Tar.
Pethor	Patara, Lycia	Phaidria, Arcadia	Pitharon, Sicily	
„	„ Capp. Arm.	Abdera, Thrace	Piternum, Sabin.	
„	...	...	Petra, Sicily	
Bithron .....	...	...	Pitharon, Sicily	
Arbath	Carpathos, I. ....	...	Herbitai, Sicily	
Aruboth				

PALESTINE.	ASIA MINOR, &C.	GREECE, &C.	ITALY, &C.	SPAIN.
BRD Zarephath ...	Sparta, Pisidia.....	Sparta, Lacon.		
BRN Paran.....	Priene, Caria	Perinthus, Thre.	Verona, Gal. Cis.	
„	Prion, Ephesus ...	Aperantia, Ætol.	Feronia, Sardinia	
„	Briana, Phrygia ...	Jamphorina, Mac		
„	Perperina, Mysia ...	...	Priferum, Sabin	
Barnea	Abarnis, Mysia ...	...	Libarna, Ligur.	
Ebronah ...	Kebrene, Mysia ...	Bruanion, Mace.		
Ziphron ...	Ophruneion, Mysia	...	Sibrium, Gal. Cis.	
„	...	...	Siberina, Brut.	
„	...	...	Sybaris, Lucan.	
BRK Argob .....	...	Argos, Argolis		
Rehoboth ...	Archabis, Capp. ...	„ Acarnan.		
Gaber.....	Cabeira, Pontus			
Chephar ...	Cibura, Pisidia ...	Euphaira, Thes.	Capra, Gal. Cisal.	Capara, Lus.
Chephirah...	„ Cilicia ...	Cyparissia, Arca.	Caprea, I.	
Kibroth.....	Kebrene, Mysia ...	Kobrus, Thrace	Cupra, Picur.	
Akrabim ...	Akraba	Akraiphiai, Bœo.		
Ephrah .....	...	Phrixa, Elis		
Bahuri .....	...	Begorra, Maced.		
Rabbah .....	...	Rhupes, Achaia		
Arabah	Harpagia, Mysia ...	...	...	Arbake, Tar.
Arab .....	...	Araphe, Attica.	...	Karavis, Tar.
Paruah ...	Pergæ, Pamphylia	Pharugai, Doris	Verrugo, Latium	Bergium, Tar.
Berachah ...	Phrygia	Perga, Maced. ...	Bergomum	Tuboricum, Tar.
„	Pergamus, Mysia	...	...	Barkine, Tar.
„	...	...	...	Bergidium, Tar.
B R Birei	Pyrrha, Caria	Pherai, Thessaly		
„	Parium, Mysia.....	Beroia, Maced.	Barium, Apulia	
BRS Bozrah	Bazaro, Capp. Arm.	Passaron, Epeir.	Posaurum, Umb.	
Bezer	Pasarne, Capp. Arm.			
Sepher	Sapura, Cilic. ....	...	Sibrium, Gal. Cis.	Sibaria, Lus.
Ziphron.....	Phusipara, Arm. ...	...	Siberina, Brut.	Subur, Tar.
Sibraim.....	...	...	Sybaris, Lucau.	Vesperios, Tar.
„	...	...	Casperula, Sub.	Kisimbrium, Bar.
„	...	...	Sibrium, Gal. Cis.	Consabrum, Tar.
Misrephoth	...	Seriphos, I.	Sirpium, Sab.	Serpa, Bœtica.
BS Abez	Ephesus	Bessa, Attica ...	Pisæ, Etruria	Ibes, Tar.
Ephez ... }	Bazeis, Capp.	Pisa, Achaia		
Paz	Abassos, Phrygia...	„ Elis		
Paseah .....	...	Phoizoi, Arcad.	Boza, Sardin.	
Sheba	Asiba, Pontus	Asopus, Lacon.	Sabium, Gal. Cis.	Savia, Tar.
Ziph	Siva, Capp.	Siphai, Bœotia...	Siphæum, Brut.	Iaspis, Tar.
Shebah	Sabus, Capp. Arm.	...	...	Aspavia, Bar.
„	Zoba, Pisidia			
BSK Boskath.....	Abaskus, R.	Phuska, Maced.	Avesika, Istria...	Bakasis, Tar.
Bezek	Physkus, Caria. ...	...	Buxeta, Gal. Cis.	

PALESTINE.	ASIA' MINOR, &C.	GREECE, &C.	ITALY, &C.	SPAIN.
BSK Jebusi	Habessus, Lycia ...	...	...	Ebusus, I.
Chozeba.....	Casbia, Lycaonia ...	Cassope, Epeirus	...	Kusibi, Tar.
Achzib				
Achshaph				
Kibzaim ...	Kabassus, Capp. ...	Kupasis, Thrace	Compsa, Sab. ...	Kaphasa, Lus.
BSD Zephath.....	Sibeda, Lycia ...	Subata, Epeirus	Sabate, Etruria	
"	...	Sphettos, Attica		
Ishtob .....	...	Stoboi, Maced....	Stabiæ, Campan.	Astapa, Boet.
"	...	Astibon "	...	Sætabis, Tar.
Tiphseh.....	...	Thisbe, Bœotia		
BSN Bashan	Passanda, Mysia ...	Pasinum, Illyria	Phausania, Sard.	
"	Pisonos, Capp. Arm.			
Zaphon .....	...	Siphnos, I.	Sæpinum, Sabini	
Shophan				
BD Eboda	Abydos, Mysia ...	Hippotai, Bœotia	Anfidia, Sabin.	Badia, Lusit.
Oboth	Beudos, Pisidia ...	...	Vatia, Sabin. ...	Biatia, Tarrac
Tebbath	Tobata, Pamph. ...	Thebæ, Bœotia...	Bodetia, Liguria	Adeba, "
Thebez	Iotape, Cilicia	" Thessaly		
Tappuah ...	Taba, Phrygia	Dipaia, Arcadia	...	Dibo, Lusit.
"	Tabæ, Caria.			
BDN Padan	Pitane, Mysia	Bithenæ, Thrace	Pitinum, Picen.	Bedunia, Tarrac
"	...	...	" Sabin.	
Beden	Petenissus, Lycaon	Pudna, Maced.	Fidenæ, Lat.	
Betonim ...	Bitoana, Caria	Puthion, Thessal.		
Aphinit.....	...	Apidna, Attic	Phintias, Sicily	Pinctus, Lusit.
"	...	Phœnike, Epeirus	...	Pintia, Tarrac
BL Abel	Abala.....	Pella, Maced.	Abella, Campania	Aboula "
Abila	Piala, Pontus	Pialia, Thessaly	Abolla, Sicily ...	Belia "
Bela	Pyla, "	Phelloe, Achaia	Pallia, Etruria ...	Obila, Lusit.
Baala	Phelles, Lycia	Boleoi, Argos	Palla, Corsica	
Balah.....	...	...	Pela, Istria	
Eleph ... }	Lapha, Crete ...	Olpe, Acarnania	{ Albium, Ligur.	Oliba, Tarrac
Heleph ... }			{ Alba, Lat.	
			{ Allife, Sabin	
			{ Elavia, Sicily	
BLD Bealoth	Ablata, Pontus ...	Philiadai, Attica	Palatium, Sabin.	Velladis, Lusit.
Baalath.....	Amblada, Pisidia...	Platea, Bœotia	Valetium, Apulia	Blætisa, "
Palet				
Bethel	Petalia, Pisidia ...	Pautalia, Maced.	Petelia, Brut. ...	Bætula, Tar.
Bethul	Podalia "	...	Petilian, Sicily	
"	...	...	Puteoli, Camp.	
Thophel ...	Tabala, Lydia	Tolophon, Locris	Tibula, Sardinia	
"	Thabilaka, Albania			
Lebaoth.....	Lebedus, Lydia ...	Lebadeia, Bœotia	Valvata, Etruria	Leptis, Bœotia
"	...	Lapathus, Thes.	...	Lobetum, Tar.
BLN Lebenah ...	Leben, Crete.....	...	Albinia, Etruria	Altamon, "

PALESTINE.	ASIA MINOR, &C.	GREECE, &C.	ITALY, &C.	SPAIN.
BLN Libnah	Colophon, Lydia ...	Alpenos, Doris.	Lavinium, Lat.	
Libnath.....	Alabanda, Caria ...	...	„ Luc.	
Pelon.....	Abliana, Albania...	Phalana, Thessal.	Pallanum, Sal.	Pallantia, Tar.
„	...	Pallene, Attica	Abellinum, Sab.	Ebellinum, Tar.
„	...	„ Laconia	Belunum, Venet.	Belon, Bœtica.
„	...	„ Arcadia	Velina, Etruria.	Pelontium, Tar.
„	...	Phalanna, Thes.	Volana, Sicily	
„	...	Peleon, Bœotia		
Pennel .....	...	...	Viniola, Sardinia	Viniola, Tarrac
BLK Cabul.....	Chabala, Albania...	...	Capula, Venet....	Gebala, Tar.
„	Cubilia, Lydia .....	...	...	Cibilis, Lusit.
Helbon	Colophon, Lydia ...	Hellopia, Epeirus	...	Kollippo, „
Bilhah	Balkeia, Mysia.....	Abilibos, Thessal.	...	Obulkon, Bœt.
Helbah				
BLR Irpeel	Briula, Caria	Araplos, Thrace	Arabela, Sicily...	Turbula, Tar.
Riblah .....	...	Harpleia, Laconia	Trebula, Sabin.	Karbula, Bœt.
„	...	...	...	Tribola, Lusit.
BLS Kabzeel	Karpazelis, Capp.	Kupsela, Thrace	Hispellum, Umb.	Hispalis, Bœt.
Bazlith	Phaselis, Pamph.	...	Pausulæ, Picen.	Pesula, Bœt.
„	Pisilis, Caria .....	...	Fæsulæ, Etrur.	Basilippo, Bœt.
Shalbim ...	Silbium, Phrygia..	...	Salebro, Etrur.	Silpia, Bœt.
„	...	...	Salvia, Picen.	
„	...	...	Silbe, Istria	
BN Nebo	Nepea, Phrygia ...	Enope, Laconia	...	Enipa, Bœt.
Nobah ... {	Niobe, Lydia (a )	...	...	Novium, Tar.
	dripping stone) }			
Nophah				
Nephtoah }				
(Well) }	Nymphæ, Lydia	...	Nepete, Etruria	Onoba, Bœt.
Anab	Anave, Phrygia ...	Anaphe, I. ....	...	Anabis, Tar.
Janobah ...	Anabon	Ænope, Laconia	...	Onoba, Bœt.
Punon	Pionia, Mysia	Panion, Thr. ...	Bouonia, Gal. Cis.	
Ophni .....	...	Hupana, Achaia	Opinum, Lucan.	
Abana	Abanus, Phrygia..	Ipni, Thessaly ..	Aufena, Subin ...	Baniana, Bœt.
KR Achor.....	Icaria, I.	Aigura, Achaia...	Akerræ, Gal. Cis.	Agiria, Tar.
Gerar	Careura, Caria	Icaria, Attica ...	Cariara, Etruria	Canrium, Lusit.
Jagur	Carus, Bythnia ...	Acharrai, Thes.	Acara, Gal. Cis.	
Rechah	Rocca, Crete .....	...	Rhegium, Brut.	
Jericho	Acharacha, Caria...	...	Arikia, Latium	Orgao, Bœt.
Arka .....	...	...	Akre, Sicily	Orkia, Tar.
Karkor	Gargara, Mysia ...	Kerka, Bœotia...	Kirkeii, Latium	Karruka, Bœt.
„	...	...	...	Kurika, „
KRL Rachal	Argela, Caria	Argule, Attica...	Regillum, Sub.	Arakeli, Tar.
Rogel	Bargulia, Caria ..	Krokulion, Ætol.	...	Vergilis, „
KRD Kartah	Kardasa, Caria.....	Khuretai, Thes.	Kroton, Brut. ...	Karthago, Tar.
Kerioth ...	Gordos, Lydia	Skiritis, Laconia		

PALESTINE.	ASIA MINOR, &C.	GREECE, &C.	ITALY, &C.	SPAIN.
KRD Kirjath	Krade, Caria			
Kartan	Gortuna, Crete ...	Gurtona, Thessal.	Cortona, Etruria	Kretina, Lusit.
Kitron	Khutrition, Lydia ...	Kitron, Maced.	Kroton, Brut.	
Geder	Getara, Albania ...	Leuktra, Bœotia		
Gerah	Cadra, Capp. ....	...	Eketra, Latium	
Gederath ...	Cedroæ, Caria .....	...	Nikotera, Brut...	
„	Cyturus, Paph. ...	...	Skidrus, Brut. ...	
„	Kotuora, Pontus			
Rakkath ...	Perkote, Mysia ...	...	Ergetium, Sicily	Tarraga, Tar.
Ariath	Ariassus, Pisidia ...	Erissiadai, Attica	Arretium, Etrur.	Aritium, Lus.
KRN Karnaim ...	Karnake, Capp. ...	Karnasion, Mes.	Geronium, Sabin.	Karanikum, Tar.
„	Karnalis, Capp. ...	Koronoa, Thes.	...	Gerunda, Tar.
„	Gorneas, Armenia'	„ Phocis		
Ekron	Grynia, Mysia	Akharna, Attica	Aharna, Etrur.	
„	Korna, Lycaonia ...	Kheronæa, Bœot.		
Horonaim ..	...	Corinthus, Cor.		
Haran	Aranis, Cap. Arm.	{ Krannon, Epr.		
Migron .....	...	{ „ Thessaly		
Rakkon	Arucandia, Lycia...	Murkinos, Maced	Murgantia, Sab.	
„	Aranga, Capp.	Erikinnion, Ths.	Fregenæ, Etruria	
„	Rignon, Lycaonia	...	Furkona, Sabin.	
Nahor	Aneyra, Phrygia ...	Anaguros, Attica	Tarquiniî, Etrur.	
Anaharoth ..	Aneyra, Galatia ...	Tanagra, Bœotia	Ankura, Sicily	
„	...	...	Nukeria, Umb.	
„	...	...	„ Gal.Cis.	
KRS Geshuri	Khasira, Arm. Maj.			
Gezor	Kizara, Capp.	Lukosoura, Area.		
Jazer	Gaziora, Pontus ...	Gazorus, Maced.		
Rissah	Rhizus, Pontus ...	Kharissia, Arcad.	Carystus, Ligur.	
Haroseth ...	Ariassus, Pisidia ...	Keressus, Bœotia		
Harosheth...	Araxa, Lydia	Erusikhos, Acar.	Carisi, Sardinia	Keresus, Tar.
Hareh				
Sirah'	Saraka, Colchis ...	...	Syracusa, Sicil.	Sorokaria, Bœt.
Charashim ..	Carasena, Mysia ...	Corseia, Lokris		
„	...	Gareskos, Maced.		
Masrekah ...	Makrassa, Lydia ...	...		Sikaraka, Tar.
Sihor	Sacora, Capp.	Sukurion, Thess.	Skhera, Sicily ...	Sekerræ, Tar.
Shicron	Daskura, Arm. Min.	Seyros, I. ....	...	Sukron, Tar.
KRM Carmel	Carmala, Cap. Arm.	Cromi, Arcadia...	Cremona, Gal.Cis.	
Karem	Karina, Galatja.	Hermione, Argol.	...	Karne, Lusit.
Horem	Korium, Crete	Hyrmine, Elis		
Hormah ...	Cormasa	Harna, Bœotia		
Gomorrah ...	Commoris, Cilieia	Comaros, Epeirus	Camarinum, Umb	
„	Chimæra, Lycia ...	Chimæra, Epeirus		
„	Cameira, Rhodes			
„	„ Crete			

PALESTINE.	ASIA MINOR, &c.	GREECE, &c.	ITALY, &c.	SPAIN.
KRM Rekem	Rhegma, Cilicia ...	Orkhomenos, Bœ.		
„	Orukhomenos, Rho.	„ Arcad.		
Machir	Mogara, Pontus ...	Megara, Megaris	Megara, Sicily	
Mechirath...	Macrasa, Lydia ...	Amorgos, I.	Himera „	
Mearah	Magarsa, Cilicia			
KBN Gibeon .....	...	...	Capena, Etruria	Cepiana, Lusit.
Cabbon .....	...	...	Xiphonius, Sicil.	Equabona, „
Nekeb	Anakba, Capp.....	Nikaia, Doris		
KBD Gibbeath ...	...	...	Capution, Sicily	
Gibbethon				
KB Gaba	Abgabes, Pontus...	Caphuai	Capua, Campan.	
Aphek .....	...	Pheka, Thessaly	Gabii, Latium	
Aphekah ...	Phokaia, Lydia ...	Phokis	Pauka, Cit	
„	...	Phégeus, Attica		
KL Keilah	Kaloe, Lydia	Khalia, Bœotia	Gela, Sicily	Kale, Tar.
„	...	Aigilæ, Laconia	Celia, Apulia ...	Okilis, „
Gilgal	Golgoi, Cyprus.....	Chaleis, Eubœa	Aquila, Sabin	
Hachilah ...	Kekulion, Mysia ...	Oichalia, Thessal.	Halikuai, Sicily	
Hogla .....	...	„ Ætol... ..	Aquileia, Etruria	
„	...	...	Agylla, „	
KLD Gilead	Gelda, Albania.....	Calydon, Ætol.	Galata, Sicily	
Galeed .....	...	Challidai, Attica	Galatia, Sabin	
Gelloth .....	...	Echelidæ „	Tigullia, Etruria	
Giloh .....	...	...	Cliternum, Sabin.	
Makheloth	Megalassus, Cap. Ar.			
Migdol	Mugdala, Pamph.			
Joktheel ...	...	...	Kutilia, Sabin.	
Giddel .....	...	...	Ekhetla, Sicily	
Helkath ...	...	Lakhiadai, Attica	Elkethion, Sicily	Olkades, Tar.
„	...	...	...	Belgede, „
KLS Chisloth ...	Akalissos, Lycia ...			
Chesil	Gazelon, Pontus ...	...		Egelasta, Tar.
Chesalon ...	Colossai, Phrygia	Glisas, Bœotia		
Chesulloth				
Salchah	Zalekhus, Pamph.	Salganeus, Bœot.	Sulchi, Sardinia	Salakia, Lus & Tar
„	Sagalassus, Pisidia	...	...	Sallakus, Lus.
Lachish.....	Lazika, Colchis ...	Lukoa, Arcadia		
Eshcol	Sagulion, Pontus...	Skullai, Thrace	Skullæum, Brut.	
„	Skolla, Capp.	Skolos, Bœotia		
Shiloh	Saloe, Lydia Lake	Sellasia, Laconia	...	Selia, Bœotia
KLN Eglon	Egilanum, Pontus	Kleonai, Argos...	Akelanum, Sab.	
Golan	Kelenoi, Phrygia...	„ Phocis...	Kalloniana, Sicil.	Klunia, Tar.
Ajalon	Kalunda, Caria ...	Kullene, Elis ..	Æculanum, Sab.	Kolenda, „
Holan .....	...	...	Hellana, Etruria	
Askelon.....	Skulake, Mysia ...	Salganeus, Bœot.	Asculum } Picen.	
„	...	...	Asklon } Apul.	

PALESTINE.	ASIA MINOR, &c.	GREECE, &c.	ITALY, &c.	SPAIN.
KLN Nahallal ...	Nakoleia, Phrygia	Ankhiale, Thrace		
K N Gain	Kana, Mysia	Ganos, Thrace ...	Cannæ, Apulia	
Kanah	„ Lesbos	Gonnos, Thessaly	Genua, Liguria	Kunike, Bal. Is.
Janoah	Konne, Phrygia ...	Khuniai, Thrace	Khana, Sicily ...	Konkana, Tar.
Kinah	Kœna, Capp.	Aiginion, Thes.	Kekina, Etruria	Kinna, „
Mekonah ...	Ikonium, Lycaonia	Mykenos, I.	Kænina, Lat. ...	Kinniani, „
„	Ægonne, Pontus ...	Mykenai, Argos	Aquinum „	
Neah	Niga, Albania	Nikaia, Doris ...	Nikæ, Liguria ...	Noega, Tar.
KDS Kadesh	Kudissos, Phrygia	...	...	Gades, Bœtica.
„	Godasa, Arm. Min.			
Succoth.....	Daskousa, Capp. ...	Skotussa, Thes.		
Hadashah ...	Hudissa, Caria			
KND Kenath.....	Gundusa, Cap. Arm.	Kunaiitha, Arcad.	Egnatio, Apulia	Akontia, Tar.
Hannathon	Knidos, Caria.....	Panakton, Attic.		
Daanah	Adana, Cilicia	Donakon, Bœot.		
Taanach ...	Thiana, Capp. ....	...	Catana, Sicily	
KMN Mekonah ..	Magnana, Pontus...	Migonion, Lacen.		
Gannim ...	Akmona, Phrygia	Mykenai, Argos	Engyum, Sicily	
Janum	Ikonium, Lycania	Mykonos, I.		
„	...	Mykunia, Ætol.	Comini	
Camon ... }	Comana, Pontus ...	Alkomenai, Thes.	...	Kanama, Bœtica
Jokneam }	„ Armenia	„ Mac.	...	Jamna, Bal. Is.
Maon ?				
Haamonai ...	...	Haimonai, Arca.		
K S Gaza	Assos, Mysia	Casos, I.	Agasus, Apulia	Oeasso, Tar.
Azzah ... }	Kissa, Pontus	Kissa, Thrace		
Gaash	Kussus, Lydia	Hessos, Locris ...	...	Kaus, Tarrac
Kezir	Kuzikos.....	Kissos, Maced.		
Hosah	Khuza, Capp.	Husiai, Argos		
Jahaza				
Azekah	Mosega, Albania ...	...	Askia, Sabin. ...	Ossigi, Bœtica
Socoh ... }	Suke, Cilicia .....	...	{ Sukkeianum,	
Shocoh ... }			{ Brut.	
Secacah .....	...	Sikinos, I.		
Shihon .....	...	Sicyon, Greece		
KD Kattah	Kuta, Colchis	Ægitium, Ætolia	Akidii, Lucania	
Gath	Kadi, Phrygia	Gatheai, Arcadia	Ægida, Istria	
Gudgodah ...	Cadyanda, Lycia ...	Guthion, Laconi	Caudium, Sab.	Tukki, Bœt.
Juttah	Kotuaëion, Phrygia	Dikaia, Thrace...	...	Tugia, Tar.
Techoa	Citium, Cyprus ...	Tegea, Arcadia ...	...	Attakum, Tar.
Athach .....	...	Attica, Greece ...	Othoka, Sardinia	Attegu, Bœt.
K Accho	Aegai, Lycia.....	...	...	Akki, Tar.
Hukkuk ...	...	...	...	Akkatukki, Tar.
SRD Zared.....	Sardis, Lydia	Sarta, Macedonia		
Sarid	Arsarata, Arm. Maj.			
Zeirath	Saratra, Lycaonia			

PALESTINE.	ASIA MINOR, &C.	GREECE, &C.	ITALY, &C.	SPAIN.
SRD Zaretan	Sardene, Caria			
Zartanah ...	Sardeva, Arm. Maj.	Zortane, Thrace	Saturnia, Etruria	
Hazeroth ...	Khasira, Arm. Maj.			
Ashteroth ...	Asdara, Capp.	Stiria, Attica ...	Ostra, Umbria	
„	Sataros, Lycia .....	...	Astura, Latium	
„	Astura, Mysia .....	...	Sutrium, Etruria	
„	Setara			
Beshterah ...	Sotira, Pontus .....	...	Pistoria, Etruria	
„	Ostrus, Phrygia ...	...	Testrina, Sabin.	
Moresbeth ...	Marathusa, Crete...	Eresidai, Attica	Rosetum, Etruria	
Moseroth } Mosera' ... }	Masora, Capp. Arm. Mazuri, Pamph.	Oresthasia, Arca.		
Tirzah	Tarsos, Cilicia	Eutresis, Bœotia	Taurasia, Sabin.	
„	Darsa, Pisidia	Thruoessa, Acha.		
SR Zoar	Sura, Iberia	Serrai, Maced. ...	Assorus, Sicily ..	Seria, Bœt.
Zer	„ Paphlag. ...	Assera, Maced.		
Zorah	Zara, Capp. Arm.	Issoria, Epeirus		
„	Azora, Arm. Major	Azores, Thessaly		
SKN Ashnah ...	Sakoena, Cilicia ...	Schoineus, Corin.	...	Assoconia, Tar.
Kishion .....	...	Sicyon, Greece...	Kasena, Gal. Cis.	
Gizon	Gazene, Phrygia ...	Sikinos, I.	Kisauna, Subin.	
Kazin .....	...	...	Kasinum, Lat.	
SRN Sharon	Saruena, Capp. ...	Serrion, Thessaly	Æsernia, Sabin.	
Sharuen	Sourion, Pontus	...	Sarsina, Umbria	
Sharaim '...	Sauronisen, Pontus	...	Ursaria, Istria ...	Siarum, Bœt.
„	Asarinum, Capp.			
SM Massah	Amasia, Pontus ...	Messa, Lacenia...	Massa, Etruria	
Mozah	Amuzon, Caria	Mases, Argolis		
Shema	Zama, Capp.	Same, Cephallenia		
Azem	Samos, I.	Oisume, Maced.		
Ezem	Syme, I.			
SLM Salem	Salamis, Cyprus ...	Salamis, I. .		
Shalom	Salmalassus, Arme.	Salmydessus, Th	...	Salmantika
Zalmon, Mt.	Soluma, Lycia	Salmone, Elis ...	Sulmo, Sabin ...	Salmuka, Tar.
Shillim .....	...	Selymbria, Thra.	„ Latium	
Leshem	Klazomenæ, Lydia	Solymnia, I.		
Mashal	Mesylame, Pontus	...	Massilia, Gaul	
SN Zenan	Sana, Arm. Major	Sane, Macedonia	Sena, Etruria	
Eshean	Sinna, Capp.	Aisonis, Thessal.	„ Umbria	
Shen	Sinna, Galatia	Sane, Macedonia	Suana, Etruria	
Zaananim ...	Soana, Capp.	Saniana, Thrace	Sinuessa, Latium	
Ashan	Azani, Phrygia ...	Asine, Lacon. (3)	Ausona, Latium	
Jeshanah ...	Osiana, Capp.	Azenia, Attica ...	Sinonia, I.	
Shunem	Sanua, Albania ...	Sunium, Attica...	Suna, Sab.	
Sansannah	Saniseni, Paph. ...	...	Sussonnia, Venet.	Sanisera, Bal.
„	Nazianzene, Cap.			

PALESTINE.	ASIA MINOR, &c.	GREECE, &c.	ITALY, &c.	SPAIN.
SDN Sidon	Sidenia, Lycia	Sithonia, Maced.		
„ „	„ Mysia.....	Sosthenis, Thes.	Sestinum, Umb.	
Aznoth	Sunnada, Phrygia			
SDL Eshtaol	Satala, Arm. Minor	Castalia	Statule, Subin.	Setelsis, Tar.
„ „	Astale, Crete			
„ „	Kastolos, Lydia ...	...	...	Castulo, Tar.
„ „	Sedala, Arm. Minor			
Thelassar ...	Artaleson, Arm. ...	...	Telessia, Sub.	
SL Zela	Zela, Pontus.....	...	...	Sellium, Lus.
Sela	Sala, Arm. Major....	Lessa, Argos ...	...	Solia, Bost.
Laish	Ozzala, Capp.	Eleusis, Attica	Laus, Lucan ..	Les, Tar.
Luz	Lassora	Oloesson, Thrace	Alsium, Etruria	
Alush.....	Eleousa, Cilicia ...	Alyzia, Greece ...	Halesa, Sicil.	
Shalisha ...	...	Sellasia, Laconia		
SS Suzah.....	Suissa, Capp. ....	...	Suess, Latium	
„ „	Assessos, Caria.....	...	Suassa, Umbria	
„ „ .....	...	...	Assissium, „	
RM Ramah (4) .	Regma, Cilicia	Rhamæ, Thrace	Roma, Latium	
Rmualh ...	Aroma, Caria	Rhamnos, Attica	Ariminium, Umb	
Armah.....	Archama, Capp.			
RN Iron	Arna (Xanthus) ...	Arne, Thessaly...	Arna, Umbria	
Haran	Aranis, Capp. Arm	Arainos, Laconia	Arentia, Subin	
„ „	Erana, Cilicia	Erineos, Doris		
„ „	Arneæ, Lydia	Arriana, Thrace	Narnia, Sardin.	
„ „ .....	...	...	„ Umbria	
Naaran	Nora, Capp.	Erana, Messen.	Nure, Sardinia	
Naarath ...	Nariandus, Caria...	Narona, Illyria	Neretum, Apulia	Nardinium, Tar.
D L Idala	Idalæa, Cyprus ...	Delos, I.	Italia, Lacen. ...	Atiliana, Tar.
Jethlah	Attaleia, Lydia ...	Daulis, Phocis		
Tolad .....	...	Oitulis, Elis	Tetellus, Gal. Cis.	Toletum, Tar.
Lod	Lade, Caria			
Alotl.....	Aludda, Phrygia ...	Elateia, Phocis		
DLN Dilean	Dolionis, Mysia ...	Delion, Bœotia...	Tellenæ, Lat. ...	Tullonium, Tar.
„ „	Mytilene, Lesbos...	Atalanta, Maced.	Vetulonia, Lat.	Atiliana, „
DN Ithuan	Thiana, Capp.	Athenai, Attica	Atina, Venet.	
„ „	Itanos, Crete	Iton, Thessaly ...	„ Latium	
Taanath.....	Tenedos, I.	Tenos, I.	Tanetum, Gal. Cis.	
„ „	„ Pamphyl.	...	Atinates, Sabin.	
Aneth .....	...	Anthedon, Bœot.	Netium, Apulia	
Anathoth ...	...	...	Antium, Lat.	
DRL Taralah	Tralles, Caria	Elatria, Epeirus	Talaria, Sicily	
DS Zedad	Side, Pamphyl. ...	Side, Laconia ...	Setia, Lat.	Asida, Bœt.
Ashdod .....	...	Sidas, Corinth	Asta, Liguria ...	Asta, Lusit.
Ashdodh ...	Tazos, Colchis	Dasea, Arcadia...	Hasta, „	
Hadashah ...	Edessa, Colchis ...	Edessa, Maced.	Tisia, Brut.	
DD Adadah	Adada, Pisidia.....	Teuthis, Arcad.	Teate, Sabin. ...	Edeta, Tar.

PALESTINE.	ASIA MINOR, &C.	GREECE, &C.	ITALY, &C.	SPAIN.
DD Hadattah ...	Adatthai, Capp. ...	Theutea, Sabin.		
DR Doro	Doron, Cilicia	Thuria, Messan.	Tiera, Picen.	
Adoraim ...	...	Ithoria, Ætolia...	Tharra, Sardin.	
Dor	Hydara, Capp.Arm.	Deraï, Sicyon ...	...	Udura, Tar.
Eder	Teria, Mysia.....	Ithoria, Ætolia...	Adria, Gal. Cis.	
Ataroth.....	Thusbeia, Lydia ...	Theudoria, Epeir.	Turrita, Etruria	Uttaris, Tar.
Ariath	Rhœteum, Mysia....	Erition, Thessaly	Arretium, ,,	Aritium, Lusit.
Arad	Rhodos, I. ....	...	Erete, Sicily	
LM Millo	Mala, Colchis	Malaia, Arcadia	Meles, Sabin. ...	Malia, Tar.
LN Allon.....	Olane, Armenia ...	Olenos, Ætolia ...	Olonna?	Alonæ, ,,
Elon .....	...	Elone, Thessaly	Luna, Etruria	
L Hali	Ali, Cilicia	Elis, Arcadia ...	Elea, Lucania ...	Alia, Tar.
LL Halhul	Halala, Capp.	Halias, Argos		
B Japho	Aphia, Phrygia ...	Abai, Phocis.....	Ophia, Sabin. ...	Hippo, Tar.
Japhia	Aipeia, Cyprus.....	Abia, Messene ...	Eubœa, Sicily	
VD Avith.....	Pida, Pontus	Aphetai, Thessal.	Veiî, Etruria	
N Ono	Annaia, Caria	Oinoe, Attica ...	Noai, Sicily	
DD Dothan .....	...	Dodona		

The identification of these names does not depend on simple general resemblance; they will be found to afford details of relationship, which again become of great importance to pre-historic investigation.

The prefixes are M, T (D), S, B (P), K, L, Y, O, &c., being the ancient series and extending beyond the Semitic.

The words in the Hebrew transliteration are generally in a crude form, without a final vowel. They generally consist of three consonants, with or without a prefix. Many are dissyllables, which in Greek or Latin transliterations are trisyllables. This latter seems to be the Caucasian form for town names, but in Asia Minor there are tetrasyllables. The tetrasyllables in Italy are mostly caused by the addition of a Latin termination.

The vowels conform to a great degree in the Hebrew and the other transliterations, though not always in the same order. Thus, to take a few cases from the earliest in the list:—

Mosera	Masora		
Shamir	Zimara	Ismara	
Maarath	Marathus	Maratha	Marathon
Amad	Amathia	Amathus	
Temani	Timena		
Dumoh	Tumia	Dumo	
Rimmon	Armone	Orminium	
Zalmoneh	Salmone		
Rumah	Roma		
Paruah	Pharugai	Verrugo	
Boskath	Phuska	Buxata	

Chozeba	Cassope		
Bashan	Passandæ	Pasinum	
Betonim	Bitoana	Puthion	
Aphinit	Apidna	Phintias	Pintia
Abila	Piala		
Punon	Bononia	Panion	
Anaharoth	Anaguros		
Charashim	Carasena		
Haamonai	Haimoniai		
Kinah	Kinna	Kinniani	Kekina
Kanah	Kana	Ganos	Gannæ
Sharuen	Saruena		
Zaananim	Saniana		
Sansannah	Saniseni		
Idala	Idalæa		
Dilean	Delion		
Adadah	Adada		
Hadattah	Adatthai		

Where vowels are interchanged in transliterations they are commonly the middle vowels (I, E), and the female vowels (O, U). The male vowels are usually represented by A. The representatives of the double vowels are another marked point.

Baala	Piala	Pialia	
Taanach	Thiana		
Gaash	Ceos		
Naarath	Nariandus		
Haamonai	Haimoniai		
Taanath	Teanum		
Irpeel	Harpleia		
Techoa	Tegea	Attegua	
Zoar	Issoria		
Zanoah	Soana		
Goath	Guthion		
Sharuen	Sarruena	Serrion	
Birei	Bireia	Barium	Pheræ
Dilean	Delion	Dolionis	Tullonium
Ariath	Reate		

Of the terminations, one of the first to be noticed is that in H. This, as lengthening the syllable, is represented in sixty-six cases by an additional vowel. A few examples are given :—

Mithcah	Medokia	Modikia	
Nimrah	Anemurium	Anemoria	
Mizpah	Messapia	Messapium	Mopsion
Berachah	Ambrakia	Bergium	
Bozrah	Perusia	Bruzcia	Bursao
Shebah	Siphæum	Zobia	
Balah	Piala	Velleia	
Shiloh	Saloe	Selia	

Suzah	Suissa	Suessa	Suassa
Doroa	Thurium	Tiora	
Hachilah	Akilium	Aquileia	
Canah	Chunia	Genua	
Hadashah	Dasea	Tisia	

It is possible that η represents the vowel in the ordinary form, as in Greek and Latin it is ι , the vowel now used in Georgian.

H changes to η , as Ummah (Homona), Mozah (Amuzon), Socoh (Suceianum), Dimonah (Timonion), Hormah (Hermione, Hurmine), Gomorrah (Camarinum), Arumah (Ariminium), and about twenty cases.

H changes also to ς , as Bozrah (Bruzus), Tirzah (Tarsus), Rabbah (Rhupes), and in about twelve cases.

H as a final changes to κ , but it is then a radical, as in Sirah (Sirika). As an intermediate letter and radical it also changes to κ , as Haresbeth (Keressos, Kharissa), Sihor (Sakora), Anaharoth (Anaguros), Hazar (Chasira), Bilhah (Balkeia), and in about twenty-five cases.

H as a final is represented as other finals are by a plural. This takes place in sixteen cases, as Hosah (Husai), Zartanah (Zortanæ), Hadattah (Adatthai), Berachah (Pharugai), Hachilah (Aigilæ).

The termination $\eta\eta$ follows the same general laws as that in η .

It represents a lengthening vowel but in a few cases, as Moresheth (Merusium), Bazlith (Pæsula).

$\eta\eta$ also changes to η , as in Timnath (Temenion), Mephath (Mevania), and in six cases.

$\eta\eta$ changes to ς more freely in about twenty-three cases, as Chisloth (Acalissos), Mechirath (Macrasa), Boskath (Abaskus, Phuskus).

$\eta\eta$ preserves its form as a final and as a radical in many cases, as—Amatha (Amathus), Kenath (Kunaitha), Maarath (Maratha); but it is represented also by δ , $\delta\delta$, and τ . It is possible that the δ in Greek transliteration was sometimes a δ helta (as in Romaic), and not a Delta.

$\eta\eta$ as a final is represented also by a plural in twenty cases, as—Gibbeath (Kaphuai), Avith (Veii), Moseroth (Mazuri), Gelloth (Khallidai).

η is a terminal; its peculiarity is that in about twenty examples it is represented also by η , as—Shihon (Sicyon), Sharon (Serrion), Kartan (Kroton), Kitron (Khutrition), Pelon (Peleon, Belon). In most cases, however, it is represented with a vowel added. Occasionally the η is mute, as in Shimron (Simara), Punon (Peonia), Pirathon (Piratheis). It is also represented by a plural form, as—Dilean (Tellenæ), Rakkon (Eregenæ).

It is to be noted that η is a terminal in other transliterations, as—Galeed (Calydon), Helkath (Elkethion), Maroth (Marathon).

η is a terminal.

η as a plural is not always represented as a plural in other transliterations. The best examples are—Akrabim (Akraiphai, Kekropai), Betonim (Bithenæ, Potniai), Zanim (Azani), Gebim (Gabi), Bochim (Bagæ).

The plural forms of the ancient town names of the several regions is perhaps to be thus accounted for. A Caucasian capital would consist of three parts, representing the middle, male, and female. The middle town was the citadel, with the residence of the king and soldiery, with the fire-temple on the hill; the male town contained the residence of the governor and the priests, of the artisans and tradesmen, with the temples and groves of worship; and the female town was the seaport or river suburb, with its population of persons devoted to the water—fishermen, boatmen, sailors, aliens, slaves, &c. In case of a summer town and a winter town, the winter town would be the middle town, on the hills, and the summer town the town on the river and plains. To express all the towns, the plural of one form—the middle town, for instance—would be used, and this practice, begun in Caucasian, would be adopted by Hebrews, Hellenes, Latins, Iberians.

Looking to the terminations in *N*, *P*, or *V*, *S*, *TH*, it is most likely they represent the two Caucasian plurals, and the locative and dative cases.

SH as a radical and terminal is represented by *s* and *z*. It is found as *z* in Shebah (Zobia), Bashan (Bizana), Eshean (Azenia), &c.

As *SH* has no character in Hellenic and Latin, it appears to have been specially represented in Greek and Latin by *ss*, or *s* with a vowel, in about twenty-five cases, as Kadesh (Kudissos), Hadashah (Hudissa, Edessa), Bashan (Abassos), Hareh (Keressos), Lachish (Leugasias), Gaash (Kissa), Mashal (Massilia), Shaarim (Siarum), Ashen (Osiana). It is conceivable that *si* would be convertible into *sh*, but the *ss* must have had a like property in some Hellenic dialects.

Another noticeable transliteration is the representations of *SH* by *sk*, *ks*, of which we have about twenty examples, such as Ashnah (Sakœna), Skhoineus (Aixone), Marehah (Morosgi), Shalom (Askelum), Ashan (Oxynia), Shebarim (Skarpha).

Z is transliterated by *z* in several examples, as—Zela (Zela), Azem (Zama), Gizon (Gazene).

In all the forms of transliteration, the first vowel is occasionally transposed and made the initial letter, as in Eshtaol (Astale), Ishtob (Astapa), Suzah (Assessos), Aznoth (Sunnada), Nimrah (Anemurium).

A peculiarity in Canaanite town names, that of alliteration, is to be found in the other transliterations. Thus Madmenah and Sansannah, neighbouring and assonant names, are paralleled by Methymna, Saniseni, Sanisera, Nazianzene, Susonnia. So Hazazen, Hukkok, Gudgodah, Zaanim, Halhul, Elealah, are paralleled by Assissium, Suessula, Sisarakka, Akkatuki, Perperina, Pompelon, Alala.

It is worth while to regard some of the names, which are common to Palestine and the other regions, and some of which are familiar enough.

In Greece we see—

Athens	Sicyon	Chalcis	Æmathia
Thebes	Phocis	Eleusis	Ithome
Argos	Marathon	Messapia	Pharsalus
Mycena	Methone	Pharsalus	Pydna
Corinth	Mantinea	Leuctra	Pelle

Mægara	Salamis	Cyllene	Idomene
Sparta	Tegea	Dodona	Rhamnusa
Lacedæmon	Platea	Calydon	Perga
Messene	Pallene	Nemea	Cyparissa
Elis	Cheronæa	Tanagra	Abdera
Pisa	Ægina	Ambracia	Hermione

In Asia we find—

Sardis	Tralles	Temnos	Amida
Ephesus	Ancyra	Methymna	Chinæra
Smyrna	Ikonium	Rithymna	Cebrene
Miletus	Priene	Cnidus	Patara
Phoea	Abydos	Cyzicus	Mygdala
Mytilene	Lebedus	Gortyna	Azani
Rhodes	Colophon	Comana	Adana
Tarsos	Amasia	Idalæa	Amathus

We recognise in Italy—

Roma	Gabii	Tusculum	Camerinum
Pisa	Veii	Telamo	Croton
Sena	Tarquini	Cære	Misenum
Parma	Catana	Aquileia	Arretia
Verona	Mazara	Lavinium	Cannæ
Syracusa	Ancona	Genua	Regillum
Capua	Nuceria	Ariminium	Caudium
Mantua	Cremona	Bergomum	Eugube
Mutina	Assissium	Fidenæ	Reate
Bononia	Patavium	Nomentum	Clusium
Massa	Cortona	Amiternum	Narnia
Luna	Sybaris	Stabie	Puteoli

In Spain we may select—

Gades	Mentesa	Equabona	Vergilium
Hispalis	Barcine	Telobis	Subur
Hippo	Carbula	Egelasta	Araceli
Bætulo	Salamantika	Ossonoba	Olcades
Carthago	Laminium	Collippo	Gebala
Carteia	Astapa	Talamina	Salacia
Tarraga	Toletum	Turbula	Spartavia
Mago	Myrtilis	Roboretum	Onoba
Castulo	Basilippo	Scalabis	Bedunia
Gerunda	Nardinium		

Thus the most ancient seats of civilisation, and many great cities of this day, are included in our list.

If the Canaanite serves as a test for the other regions, it enables us to ascertain what were radicals and what terminals, and to decide on the essential characteristics. It follows, on the converse, that the other transliterations give the like aid for Canaanite. Thus the names of Etruria, Armenia, or Hellas, become criteria for Palestine—to decide what is Caucasian and Canaanite, and what is Hebrew.

If the names of Etruria or Attica are taken, the Canaanite canon will assist in their decipherment, as they in return throw light on the names of Canaan.

The proofs above given are purely philological, but they point to material results. If, for instance, there was at one time a population in Canaan, a population in Kholkis, one in Lydia, another in Bœotia, one in Etruria, and a population in Lusitania, using the same language in the same way for naming their towns, then there must in all these regions have been populations using not only the same language, but the same mythology and the same arts. Their rude stone monuments, their castles, their citadels, their town walls, gates, foundations, sewers, tombs, arms, utensils, would present points of resemblance and comparison as assured as those to be found in the community of words.

Thus the exploration of Palestine under the auspices of the Palestine Exploration Fund, if pushed far enough and deep enough, and if adequately supported by contributions, must throw the greatest light on the archæology of Asia and Europe. The Bible tells us that the Israelites invaded a settled population having walled cities, and, as it is here proved those cities were built by the same ruling race as that which raised the walled cities of Caria, Attica, and Latium, so will the exploration of Palestine be effectually a classic exploration as well as sacred, and as much as if conducted *in situ* in Caria, Arcadia, Apulia, or Hispania Tarraconensis.

In the case of Hellenic exploration, we are confused as to what is Cyclopean, Pelasgian, or Hellenic. In Etruria we hardly know what is indigenus and what is posterior. In megalithic monuments we look for the Druidic; but in Palestine we are free from these sources of confusion. There we shall not be disturbed by Leleges, Pelasgi, Hellenes, Sabini, Iberi, Celtiberi, or Druids. We have one danger—that of distinguishing between what is Phœnician of the Caucasian period and what is Phœnician of the Semitic period; but altogether we have in Palestine the fairest field as yet open to us for testing the earliest and most important points in archæology and pre-historic studies.

Although in this paper comparisons have been made with the West, that is not their limit, they equally apply to the East. The same evidence of language here given is available for Mesopotamia, Persia, and India. Thus exploration in Palestine will lay the foundation for a better investigation of sites in those regions, as yet imperfectly examined, or which have not been approached. Palestine is, too, a boundary land for that epoch of archæology. From Egypt there is a sharply-marked-out line, beyond which the Caucasian area does not advance. The influence of Egypt within the Caucasian limits is likewise much less than the ignorance of Herodotus has led us to believe, so also is the influence of the Phœnicians. On all these points the soil of Palestine promises to give us materials in aid and in elucidation of the ancient text, exhibiting that text not merely as a local and personal

history of the Israelites, but as our oldest and best exponent for the history of the ancient world and the early dawn of civilisation.

With the new light which we have acquired as to the relations of Palestine, it is impossible to tell what departments of history may be affected by the results. Thus, with regard to Spain, it is already evident that the conclusions of William von Humboldt with regard to the Iberians must be materially modified. The important discovery of that philosopher of the relation between ancient local names in Spain and modern Basque gave us a Turanian population as an element in ancient Europe; but the value of that element was exaggerated by himself and by others, and, among these, by myself, in my paper on the Iberians in Asia Minor. It appeared to follow from Von Humboldt's discovery, that all which was not apparently Celtic or presumed Phœnician or Carthaginian in Spain, must be Iberian. One serious consequence of this assumption was that names in Italy, Hellas, &c., resembling those in Spain were held to be Iberian, and evidence of an Iberian population in those countries. It also followed that the ancient civilisation was considered to be Iberian. From the Canaanite test it appears that terms in Spain having Basque affinities are not Iberian, and many others supposed to be Iberian are not so.

Astura, a name found in Spain and Italy, is one of the strong points of the system of Von Humboldt (see his "Researches on the Primitive Inhabitants of Spain"), and yet his derivation of *Astura*, from *asta*, rock, and *ura*, water, as signifying "rock water," is most suspicious. *Astura* is, however, by all linguistic evidence, the analogue of *Ashteroth* and *Beeshterah* in Palestine, and consequently not only of *Astura* in Latium, of *Astura* in Mystra, but of a dozen names of allied form scattered over the ancient world. *Astura*, too, as a river name, is not dependent on the Basque *ura*, water, but is formed from a radical *D R S*, as the town names are. *Asta*, another key of his system, is not formed from *asta*, a rock, but is a recognisable Caucasian town name. It is Palestine which affords the touchstone in these cases. We may pause as to *Astura* and *Asta* in the European peninsulas, but we have no Basque influence to disturb our opinions in Palestine. It follows, as a remote consequence, even with regard to the population of Britain, that besides the Iberian element which has been recognised in the *Silures* and in Western Ireland, there must have been an anterior population of the same alliance as the Canaanite.

It is thus the connection of archæological science, as of physical science, and of all sciences, extends to the remotest consequences, and the displacement of one atom will immediately and ultimately affect others. Indeed, so far as concerns ourselves, it is within the limits of probability that the present expedition to Palestine may throw a light on the megalithic monuments of Britain and on the gold ornaments of Hibernia. Earlier inscriptions in characters as yet unrecognised may yet reward the explorer, and consolidate and harmonise the relics of ancient history.

HYDE CLARKE.

PALESTINE EXPLORATION FUND.

Patron—THE QUEEN.

Quarterly Statement

FOR 1872.



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THE
PALESTINE EXPLORATION FUND.

LETTERS ON THE SURVEY.

I.—FROM MR. GEORGE GROVE.

Reprinted from the "Times."

SIR,—It will be seen from your advertising columns that the **Pales-** **tine** Exploration Fund has just despatched its autumn expedition to the Holy Land, and I take the opportunity to explain what we are proposing to do, and to solicit the aid of the public in doing it. It is now proposed to make a complete and minute survey of the whole country west of the Jordan, from the extreme north to the extreme south of the Holy Land proper—"from Dan to Beersheba"—of the same nature with the Ordnance Survey of England and Wales. That is to say, not only will the natural features of the country be accurately mapped, but every town and village, every saint's tomb, every sacred tree or heap of stones, every spot, in short, to which a name is attached—and in Palestine a name is attached to nearly every irregularity of the soil—will be faithfully plotted in our map, and its name written down in Arabic by a competent Arabic scholar, wherever possible by the head man of the village or district, or some other native. Our survey will not only deal with the beaten tracks and frequented places, but will penetrate into those nooks and corners in the entangled hilly country which are never approached by ordinary travellers, but which form three-fourths of the Holy Land, and are as thickly sown with names as the parts along which every stranger passes. In this way alone can a map be obtained which shall answer the wants of modern Biblical topography and of the student anxious to understand the Bible in the thorough manner in which it is worthy to be understood. In some form or other, either of translation, or transference, or corruption, or allusion, there is reason to believe that most of the ancient names are embalmed in the modern ones, and the topography of the Old and New Testaments can never be satisfactorily adjusted, or its correspondence with that of the actual country be made manifest, till the modern names are discovered and recorded in the most ample and detailed manner. This, then, is the

immediate purpose of our present expedition. The archæological investigations recently so ably urged in the *Times* will by no means be neglected. On the contrary, they will receive careful attention. But at present they can only be subsidiary to the Survey, or, at any rate, the two must proceed *pari passu*. The basis of all investigation of a Country and a Book alike so curiously rich in topographical elements, is a thoroughly minute and exhaustive map; and, valuable as the archæology is, the Committee do not think themselves justified in preferring it to the Survey. But they have not left archæology out of their scheme, and they anticipate that, as in the Ordnance Survey of Great Britain and Ireland, a large amount of information on that head will be obtained through the observations of their surveyor.

The Government, always ready to assist the Fund by all means in its power, has been good enough to allow us to have the services of Captain Stewart, R.E., an officer of great experience in the English survey and that of Ceylon, and himself a skilful working photographer. He has already taken his departure with two sappers in whom we hope to see the admirable qualities of Sergeant Birtles and Sergeant Phillips reproduced. At Christmas Captain Stewart will be joined by Mr. Tyrwhitt Drake, already well versed in the language and habits of the East, and favourably known for his journey in the Wilderness of the Wanderings with Professor Edward H. Palmer, of Cambridge. An archæologist will follow as soon as the funds permit.

Captain Stewart will not remain in or near Jerusalem. The works there, necessarily relinquished by Captain Warren on his return to England, are under the charge of Dr. Chaplin, the able surgeon of the English Hospital. For the further prosecution of the investigations at Jerusalem, the Committee have other views, which I hope shortly to explain; but this part of our observations must be kept quite distinct from the survey. In the meantime, should anything special arise, Captain Stewart will be within easy reach of the Holy City, and can be quickly brought to the spot.

My readers will remark that I have spoken only of the west of the Jordan, and that for the very satisfactory reason that the survey of the eastern side has been undertaken by the American committee. At the instance of the Palestine Fund the subject has been taken up by the people of the United States with an earnestness and spirit which fully relieve us from all anxiety as to the successful accomplishment of their portion of the undertaking. This is only natural in the countrymen of Robinson and Lynch, but it is not the less gratifying, and it ought to stir us up to an honourable rivalry in a cause in which England has already done so much, and in which we must remain first in the field.

The time which the survey is estimated to take, from Captain Stewart's arrival to the delivery of the map, with lists, photographs, and drawings, to the Committee, is four years, and the estimated annual cost £3,000. The annual income on which the Committee of the Fund can depend is at present about £2,000, so that an additional annual sum of

£1,000 is required to carry on the survey, in addition to the works at Jerusalem and to the various collateral things which are constantly occurring.

I feel sure that our new undertaking will be well supported in Great Britain by those who have hitherto shown so lively and practical an interest in the exploration of Palestine. The present work is necessarily slow, but it is sure, and it has the advantage over archæological researches that its results are not problematical, but certain. The objects with which it deals are not hidden hundreds of feet below the ground, to be searched for at hazard, but are open on the surface, where their appropriation is only a work of time. Nor are the ultimate results less certain. Those who give their money for the survey may rest assured that the map which will be handed to them at the close of the undertaking will contain the most definite solid aid obtainable for the elucidation of the most prominent of the material features of the Bible. Biblical research has now reached a point at which it cries out for a thoroughly accurate map as indispensable to its further existence. And this thing so much wanted can only be done by the combined efforts of private persons. No Government can undertake it. But the Committee of the Palestine Fund, comprising so many of the leading personages in Church and State, acting under the patronage of Her Majesty the Queen, and employing officers of the Royal Engineers of known skill and character, supplies a guarantee hardly inferior to the guarantee of Government that the work will be thoroughly done. I, therefore, confidently ask the aid which has never yet been refused to my appeals on behalf of this most important branch of investigation, which so peculiarly unites the claims and the interests of Science and Religion.

Your obedient servant,

GEORGE GROVE,

Hon. Sec. Palestine Exploration Fund.

November 7, 1871.

II.—FROM CAPTAIN R. F. BURTON.

The return of Mr. C. F. Tyrwhitt Drake to Damascus on November 5, after his dangerous *reconnaissance* of the 'Ulah or uplands lying between the El Hamah (the Hamath of the Old Testament) and Aleppo, enables me to say a word for the cause lately advocated in your columns by the "Hon. Sec. Palestine Exploration Fund." My friend and fellow-traveller, during a journey of thirty-five days, averaging six miles of riding per diem, sketched and fixed the positions of some fifty ruins which, in presence of the Circassian immigration, now a *fait accompli*, are fated soon to disappear from the face of earth; he is also sending home twenty to twenty-five Greek inscriptions, of which six or seven have dates, and before joining Captain Stewart, R.E., he will

explore the Harrah or Hot country, a pure white blank in the best maps, which, however, have not yet had the opportunity of being good. All except the hydrographic charts have been hurriedly executed; the bearings are mostly in confusion, and the proper names of places are hideously distorted. Let me offer, as a proof, the positions for Palmyra supplied to me by Mr. Stanford, of Charing Cross:

	Deg.	Min.	Sec.	Deg.	Min.	Sec.
1. Duc de Luynes' map; Lieut. Vigne's position	N. lat. 34	32	30	E. lon. 38	14	39
2. Lieut. Colonel Chesney's map, published by Walker	N. lat. 34	15	00	E. lon. 38	35	00
3. Carl Ritter's map	N. lat. 34	17	30	E. lon. 38	32	30
4. Major Rennell's map	N. lat. 34	24	00	E. lon. 38	20	00

Here then the extremes of difference in latitude amount to seventeen miles, and in longitude to twenty miles, or a total of thirty-seven miles, in fact nearly thirty-eight; and it must be remembered that Palmyra lies within an easy four days' ride of Damascus.

Newly transferred to Syria and Palestine, I imagined—and many would do the same—my occupation as an explorer clean gone. The first few months, however, proved to me that although certain lines of transit have been well trodden, yet few travellers and tourists have ever ridden ten miles away from the high roads. No one, for instance, would suspect that so many patches of unvisited, and possibly at the time unvisitable country, lie within a day or two's ride of great cities and towns, such as Aleppo and Damascus, Hums and Hamah. When the maps have a virgin white in the heart of Jaydur, the classical Ituræa, students naturally conclude that the land has been examined and has been found to contain nothing of interest—the reverse being absolutely the case. Again, there are not a few who will scarcely have stomach for the task when they learn the reasons why these places have escaped European inspection, namely, that they will not afford provisions, forage, or water, or that they are infested by the Bedawin. The latter, indeed, compare favourably with the Klephts; they have not got to detain you for ransom or to threaten you with excision of the nose and ears unless your friends consent at once to pay the exorbitant demand; they will spear you a little, as they did a French Secretary of Legation at Athens who expected to put a Razzia to flight like monkeys by firing a revolver, but they will not kill you in cold blood except according to the strict *lex talionis*. Still, even under these mitigated circumstances, travellers, certain that an escort unless of overpowering numbers will at once turn tail, hardly care to expose themselves, their attendants, and their effects to a charge of Bedawin cavalry.

Again, the places have escaped exploration simply because the dragoman disliked them. Not a few readers, even professed geographers, would suppose that in describing the Anti-Libanus, as I propose to do, my task would be limited to filling up with minor details the correct

outlines traced by predecessors. The contrary is positively the case. Surprising as it may appear, it is still true that the best and truest modern maps—I bring no charge against the mappers—do not name a single valley north-east of Zebedāni, nor a single summit except the “Jebel el Halimah”—an utter misnomer. They show merely the long conventional caterpillar, flanked by the usual acidulated drops, and seamed with the normal thread of drainage; when they have disposed all this parallel with the Libanus, they have apparently done their duty. The traveller, with his handbook, perfectly ignores the fact that the general aspect of the range is far superior to that of the Western Sierra; that the colouring of the rock is richer; that the forms are more weird, savage, and picturesque; that the contrasts of shape and hue are sharper, and that the growth assumes in places the semblance of a thinned forest. As will presently appear, the range is in many points more remarkable than its maritime sister, and it may in fact be called a section of new ground in an old land.

Your correspondent (Nov. 7) has effectively pointed out the nature of the work required by the Bible lands proper, “from Dan to Beer-sheba,” where there is nothing barren of interest. It is to be hoped, however, that the funds will soon permit an archæologist to follow the surveyor. Although the East moves slowly, still she moves, but her present movement is all towards the change of ancient and Oriental to modern and European art, and in many places to the destruction of the most valuable remains of antiquity. The ruins of the 'Ulah are being pulled to pieces in order to build houses for Hamah. The classical buildings of Saccæa are torn down and set up into rude hovels for the mountaineers who have fled from the Anti-Libanus and the Hermon. Patterns which possibly antedate the Pyramids are making way for cheap English calico prints. The porcelain sent from China is sold or stowed away, and the table is decked with bits of French stuff, all white and gold, and worth, perhaps, a franc a piece.

Allow me to conclude with again attempting to impress upon subscribers to the Palestine Exploration Fund that Syria, north of Palestine proper, is an old country, in more than one aspect, geographical and technological for instance, virtually new. A Land of the Past, it has a Future as promising as that of Mexico or of the Argentine Republic. The first railway that spans it will restore to rich and vigorous life the poor old lethargic region; it will raise this Lazarus of eastern provinces from his neglected grave. There is literally no limit that can be laid down to the mother-wit, to the ambition, and to the intellectual capabilities of its sons—they are the most gifted race that I have, as yet, ever seen. And when the curse shall have left the country, the plague-spot of bad rule, it will again rise to a position not unworthy of the days when it gave to the world a poetry and a system of religion still unforgotten by our highest civilisation.

RICHARD F. BURTON, F.R.G.S.

Howlett's Hotel, December 14, 1871.

III.—FROM THE REV. F. W. HOLLAND.

Reprinted from the "Guardian."

SIR,—Three years ago you kindly inserted in your columns a letter from me asking for the help of the clergy and your other readers in carrying out the Ordnance Survey of the Peninsula of Sinai.

Owing in great measure to your assistance the necessary funds were collected, and the survey was brought to a successful issue.

May I again be allowed a little space to advocate the claims of a similar work, the survey of the Holy Land? The Committee of the Palestine Exploration Fund has already despatched an expedition for this purpose, consisting of Captain R. W. Stewart, R.E., and two non-commissioned officers selected from the staff of the Ordnance Survey. Mr. C. F. Tyrwhitt Drake, who is an experienced Eastern traveller, and a good Arabic scholar, is to join them, as soon as he has completed some explorations which he is now making in the country north-east of Damascus.

By this time Captain Stewart must have commenced his survey. Full details of his instructions are given in the last *Quarterly Statement* of the Palestine Fund. I will not, therefore, occupy your space by repeating them. Suffice it to say that the Government has approved of the survey, and has given every assistance in its power; and that no expense or trouble has been spared to render the organisation of the expedition as complete as possible.

Our main objects are to obtain an accurate map of the country west of the Jordan, on which, in addition to the topographical features, shall be laid down the positions of all towns, villages, ruins, roads, &c.; (the American Palestine Exploration Society, working side by side with us, will undertake the survey of the country lying on the east of the Jordan); to explore the mountains and hill-tops which formed generally the homes of the ancient inhabitants; to collect all existing traditions and names; and to search for and examine all remains of archæological interest.

Let it not be thought, however, that we have given up the intention of carrying on Captain Warren's work at Jerusalem. The Holy City must always remain the central point of interest; and no occasion will be lost of proceeding with the excavations there whenever any opportunity may occur which seems to promise decisive results. We shall always have an agent at Jerusalem, who will be in constant communication with Captain Stewart.

But for these explorations additional funds are required. The present income of the Society is not adequate for the work. We must have at least £1,000 a year more to carry on the work on its present scale; and it could be far more effectually and more cheaply done by the employment of a larger staff.

We appeal, then, for help to enable us to carry out this important undertaking to a successful completion. Surely we shall not appeal in

vain; for our object is not to establish this or that theory, but by throwing more light upon the Land of the Bible, to illustrate and explain the pages of the Bible itself.

F. W. HOLLAND, *Hon. Sec.*

November 27, 1871.

LETTERS FROM MR. C. F. TYRWHITT DRAKE.

I.

DAMASCUS, *June 11, 1871.*

I enclose a few of the inscriptions that I copied (in all about 120) in Jebel Druze Hauran. I have had no time to write out more of them. I was only there a few days, so did not collect so many as I hope to do on a second visit. Some of them have, I know, been already copied, but others were so covered with lichen that it was impossible to make anything out till I had cleaned them; others were concealed by plaster in the houses. From Jebel ed Druze, after much opposition from the Druzes at Shukka, who were afraid to accompany us and were ashamed of letting us go alone, we went to Umm Nirán (*Mother of Fires*), a curious cavern, partly natural and partly artificial, in the great volcanic outburst called El Wár. There are no ruins near it, and it is very curious, as water drips from the roof and the whole of the country above is an arid fiery waste of black lava. Thence we went to El Akir and other volcanic tells in the neighbourhood, thence to Bir Kasam, and afterwards to Jebel Dakweh. From these volcanoes, many of which are of considerable size, I was able to lay down the whole series of tells north of the Safa. From Jebel Dakweh we went to Dumeir, and just missed, by a few hours, a foray of one hundred horsemen and two hundred men on camels, who seem to have been dodging us for two days, but who missed us owing to our erratic course. They plundered Harran El Awamid, and two neighbouring villages within half an hour's ride of a camp of six hundred Turkish soldiers.

In the Hauran we found the true source of the Leja (Tell Shiham), which seems to have been quite overlooked by previous travellers. Wetzstein's "great lava stream," from Jebel Kuleib (which we ascended) only exists on his map. Jebel Kuleib, *the turning-point*, not as Mr. Porter translates it, *the little heart*.

II.

DAMASCUS, *June 29, 1871.*

Since I last wrote I have been to Hums and Hamah, and will now lay before you the results of my journey.

Hums (the ancient Emesa) is a town of great importance; the country

around it is very fertile, producing large quantities of grain. The manufactures, which chiefly consist of silk goods, are largely exported to Egypt and Abyssinia, and are justly valued. The silk is produced in the Nuseíri mountains, and is of good quality. The houses are built of mud or stone (the latter is chiefly basalt); and I found a large number of Greek inscriptions built into the walls, but as they were *invariably* broken (the better to serve for building purposes), I only copied a few as examples.

There is a large Christian population, consisting of 5,500 Greek orthodox and 1,500 Jacobites and other denominations. Of the churches belonging to the former, that of the forty martyrs is the most important; the apse is circular, and has a gigantic figure of the Virgin painted in it; the body of the church is modern, but constructed with columns, &c., taken from an older building. Tradition relates that the church was built by Justinian, but there is nothing to prove this in any part of the edifice as it now stands. The wood carving of the screen in front of the altar is handsome—the work of a Damascus artist about thirty years ago. The church in the Deir Mar Elyan (convent of St. Elias) was rebuilt about twenty-five years ago. Behind the altar, at the south-east corner, is the tomb of Mar Elyan, a handsome marble sarcophagus, whose length is 7ft. 6in., breadth, 3ft. 2½in., and height, 2ft. 5in., the cover being 2ft. 1in. more. At each corner of the lid, which is ridged, is a square pillar, surmounted by a round ball. There are two crosses at each side and one at each end, as well as one on each side of the lid, which was formerly clamped on in four places. The sarcophagus is in perfect preservation, and is said to have been originally brought from Russia. There are now no monks in the Deir, which is believed by the native Christians to be the earliest ever founded in the country.

The Syriac church was built only nine years ago, and contains nothing of interest.

The great mosque is called the Jami'a en Núrí, and was formerly a Christian church, dedicated to Mary, Mother of Light, whence the modern name En Núrí (Light). In the court of the mosque I observed a number of grey and red granite columns and a few mutilated capitals. To the south side of the mosque itself is a small dark chamber, where the head of John the Baptist is said to be buried. In restoring the mosque a few years ago, some bones were discovered under the pavement. As they exhaled a sweet odour, they were unanimously voted the bones of some saint, and were re-interred in the centre of the pillar to the north-west of the Mibrab. In this prayer-niche some mosaic has been used, relics of the former building.

The Madnet Meshed, or, as it is frequently called, Madnet Sheikh Hammed (Minaret of Sheikh Hammed), is considered by the natives of great antiquity. It is merely a square tower of black basalt, divided externally by cornices into four stories, and ascended internally by a staircase built round, and square centre, and terminating at top in a chamber floored with basalt slabs. The roof has disappeared, as have

many portions of the staircase, which renders the ascent somewhat difficult. I enclose the copy of an inscription on the outside.

There are many ornamented sarcophagi in the town used as water troughs, &c., and are called by the people Rasd (pl. arsad), and are named from some fancied likeness in the patterns to beasts and birds, as the Rasd el'Akrab (scorpions), near the Bab es Suk, el Afá'í (snakes), and el Haiyát (snakes), &c. I found, however, nothing but wreaths and conventional patterns sculptured upon them.

I was continually being taken off to see inscriptions in Hebrew or some unknown character, but they always turned out to be Cufic—generally very badly written—or, as in one case, a very conventional pattern of grapes and vine leaves. Many of the existing fragmentary inscriptions have been brought from neighbouring ruins. This fact, combined with their mutilated state, renders them of little, if any, value.

The Kala (fortress) is most conspicuous and interesting. It consists of an oval mound about 100ft. high, and surrounded by a moat some 25ft. in depth, which is still perfect towards the west and south-west. The outer casing of the mound is Saracenic, and consists of a mass of masonry from five to eight feet thick, bound together with mortar, and faced with small squares of basalt. Pillars of basalt and limestone, taken from a former building, are used as ties. In some places, as at the south-east, where this outer casing has been destroyed, two other, and of course more ancient, escarpments appear: these are built of limestone (conglomerate). A considerable portion of the upper part of the mound appears to be formed of made earth, as I noticed beneath the innermost casing layers of ashes and burnt soil, as well as a few fragments of pottery. To the north-east some portions of a well-built wall of white limestone are visible, and these Captain Burton considers to be remains of the well-known Temple of the Sun. There being no other elevated ground in the neighbourhood of Hums, this supposition is rendered extremely probable, which is confirmed by local tradition. To the west of the Kala are ruins of a handsome Roman brick tower, in good style, ornamented exteriorly with pilasters, cornices, and diaper work, executed in basalt and limestone.

The only ancient tomb I found was to the south-east of the Kala. The excavated chamber was filled up with rubbish, but was described to me by a man who had seen it as containing six loculi formed of slabs of stone, arranged three on each side. A flight of steps descend to a stone door, from which a passage, covered with slabs of basalt, led to the chamber. With the exception of the door, the other stones have been displaced, and are being carried away for building purposes. I found a few fragments of glass near his tomb.

From Hums to Hamah the distance is about twenty-one miles; the road passes Restán (*Arethusa*), where the ruins are interesting as showing the dispositions of the streets very clearly. Excavations here would probably be productive. I did not find any inscriptions, and all

antiques or coins are taken to Hums and Hamah, where they are bought up by the Christian silversmiths, who as a class are such consummate liars and cheats, and consider all engraved stones and coins of such unknown value, that it is almost impossible to deal with them.

Hamah, a much larger town than Hums, is situated in a depression not unlike a vine leaf in shape, on the banks of the 'Assy (Orontes). A mound similar to that at Hums, but larger, marks the site of the ancient Kala, and stands on the south bank of the river. All the stones have been taken away for building purposes, but to the east, masses of rubble and sun-dried bricks are still visible.

One of the most striking features of Hamah are the Ná'úrahs, water-wheels from twenty to seventy-five feet in diameter, intricate edifices of timber which, by means of boxes round the edge, throw the water into aqueducts which irrigate the gardens. Each Ná'úrah belongs to a company, who keep it in repair. The creaking of these huge machines, which spill as much water as they lift, is ceaseless, and monotonously discordant. In all there are about twenty of them; the principal one is the Mohammediyeh, to the west of the Kala. El Khudúrah is also large. To the south-east of the Kala are El Jisriyeh on the north-east, and El Mamúriyeh on the south-west bank. The current of the Orontes is strong and very deep. Fish are plentiful.

El Jami'a el Kibír (the great mosque) was originally a Christian church. There is a Greek inscription over one of the windows (seemingly a sister one to that which now forms the altar of St. Michael in the Greek church of the Blessed Virgin) and another long inscription is said to be covered with plaster in the interior of the building. The mosque has two rows of four pillars each; the nave has three domes, and there is another over the Mihrab; the aisles and ends of the nave are vaulted. On the outside a flat projecting cornice is supported by heavy corbels. In the courtyard there is a small dome (similar to that which contains the books in the great mosque at Damascus) supported on eight pillars, with acanthus capitals.

Many of the mosque towers are in good taste; the reddish yellow limestone and black basalt are well contrasted in artistic patterns.

The Greek orthodox Christians here number about 200 men (*i.e.* houses), and there are a few Jacobites. The churches contain little of interest. The colony of Jews was driven out some fifty or sixty years ago, on account of the disappearance of a Turkish girl in their quarter, and have never been allowed to return. I visited their cemetery, and have copied the solitary inscription there which seems to have been over the entrance to an excavated place of burial. This cemetery, Kabúr el Yehúd, lies about one mile north-west of the town on the plateau. The cliffs between it and the town are full of caves, now used as dwellings and storehouses. All that I saw seemed originally made for those purposes, and not for sepulchres.

To the south of the town a deep fosse is cut on the edge of the

plateau, only leaving room for two or three rows of houses. There are traces here of the old wall.

My primary object, of course, in visiting Hamah was to examine the hieroglyphic inscriptions, and hearing that fabulous prices had been asked by the owners, I was exceedingly cautious, and spoke to no one about them, but waited till they were shown to me, which occurred on the second day of my stay there. I then endeavoured to eradicate the idea of great value, and I hope succeeded to a great extent. The next day I took squeezes and photographs. The former are good, but the latter, owing to an accident to my baggage animal, are not successful. I hope, however, to return to Hamah before the autumn, when I shall take plaster casts and other photographs.

III.

SALAHIEH, DAMASCUS, *Sept.* 30, 1870.

I start to-morrow upon a journey into North Syria, which will probably occupy me a month or five weeks' hard riding. I intend, if not effectually stopped by the Bedawin, to push as far as Rusáfa, on the Euphrates; here there is an enormous castle about which the Bedawin tell me marvellous stories, and, as far as I can make out, no European has ever approached it. On returning I shall visit the 'Ulah, to the east and north-east of Hamah, where 365 ruined towns are said to exist; they are full of Greek inscriptions, and resemble in architecture the so called Giant Cities of Bashan, *i.e.*, they are of the Beni Ghassan type.

C. F. TYRWHITT DRAKE.

NOTE.—By the latest intelligence received, Mr. Drake has returned to Damascus, after passing through the Ulah to Aleppo. The Ulah (uplands) begins on a parallel east of Hamah, the ancient Hamath. It is marked in some of our maps as the Great Syrian Desert, an unfortunate misnomer, as it is a region exceptionally *riant* and fertile. Unfortunately, the Bedawin have been allowed to harry the country, and consequently the 360 towns which once existed there are now all in ruins. The extensive immigration of Circassians which has recently taken place will also tend further to the destruction of these remains. It is, therefore, gratifying to add that Mr. Drake has returned laden, not only with sketches, plans, measurements, but also with Greek inscriptions, of which there are a great number lying about. These would, of course, if left uncopied, soon have perished with the stones on which they are inscribed.

THE TRACT "MIDDOTH"—ON THE MEASUREMENTS OF THE TEMPLE.*

LITERALLY TRANSLATED FROM THE MISHNA.

I. The priests guarded the sanctuary in three places—in the House Abtinus,† in the House Nitzus,‡ and in the House Moked;§ and the Levites in twenty-one places, five at the five gates of the Mountain of the House, four at its four corners inside, five at the five gates of the court, four at its four corners outside, and one in the chamber of the offering, and one in the chamber of the vail, and one behind the house of Atonement.

II. The captain of the Mountain of the House went round to every watch in succession with torches flaming before him; and to every guard who did not stand forth the captain said, "Peace be to thee." If it appeared that he slept, he beat him with his staff, and he had permission to set fire to his cushion. And they said, "What is the voice in the court?" "It is the voice of the Levite being beaten, and his garments burned, because he slept on his guard." Rabbi Eliezer, the son of Jacob, said, "Once they found the brother of my mother asleep, and they burned his cushion."

III. There were five gates to the Mountain of the House—two Huldah gates in the south which served for going in and out; Kipunus in the west served for going in and out; Tadi|| in the north served for no ordinary purpose. Upon the east gate was portrayed the city Shushan. Through it, one could see the high priest who burned the heifer, and all his assistants going out to the Mount of Olives.

IV. In the court were seven gates—three in the north, and three in the south, and one in the east. That in the south was called the gate of flaming; the second after it the gate of offering; the third after it the water-gate; that in the east was called the gate Nicanor. And this gate had two chambers, one on the right and one on the left. One the chamber of Phineas the vestment keeper, and the other the chamber of the pancake maker.

V. And at the gate Nitzus on the north was a kind of cloister with a room built over it where the priests kept ward above and the Levites below; and it had a door into the Chel.¶ Second to it was the gate of the Offering; third, the House Moked.

VI. In the House Moked were four chambers opening as small apartments into a saloon—two in the holy place and two in the unconsecrated place; and pointed rails separated between the holy and the unconsecrated. And what was their use? The south-west chamber was the chamber for the offering; the south-east was the chamber for the shew bread; in the north-east chamber the children of the

* Reprinted in Jerusalem, 1867, and presented to the Fund by Capt. Warren.

† A famous maker of incense. ‡ Sparkling. § Burning. || Obscurity

¶ Platform, or rampart.

Asmoneans deposited the stones of the altar which the Greek kings had defiled. In the north-west chamber they descended to the house of baptism.

VII. To the House Moked were two doors—one open to the Chel, and one open to the court. Said Rabbi Judah, “The one open to the court had a wicket through which they went in to sweep the court.”

VIII. The House Moked was arched, and spacious, and surrounded with stone divans, and the elders of the Courses slept there with the keys of the court in their hands; and the young priests each with his pillow on the ground.

IX. And there was a place a cubit square with a tablet of marble, and to it was fastened a ring, and a chain upon which the keys were suspended. When the time approached for locking, the priest lifted up the tablet by the ring, and took the keys from the chain and locked inside, and the Levite slept outside. When he had finished locking, he returned the keys to the chain, and the tablet to its place—laid his pillow over it and fell asleep. If sudden defilement happened, he rose and went out in the gallery that ran under the arch, and candles flamed on either side until he came to the house of baptism. Rabbi Eleazer the son of Jacob says: “In the gallery that went under the Chel he passed out through Tadi.”

OUR BEAUTY BE UPON THEE IN THREE PLACES.

I. The Mountain of the House was five hundred cubits square. The largest space was on the south, the second on the east, the third on the north, and the least westward. In the place largest in measurement was held most service.

II. All who entered the Mountain of the House entered on the right-hand side, and went round, and passed out on the left; except to whomsoever an accident occurred he turned to the left. “Why do you go to the left?” “I am in mourning.” “He that dwelleth in this house comfort thee.” “I am excommunicate.” “He that dwelleth in this house put in thy heart repentance, and they shall receive thee.” The words of Rabbi Mayer, to him said Rabbi Jose, “Thou hast acted as though they had transgressed against him in judgment; but, may He that dwelleth in this house put in thy heart that thou hearken to the words of thy neighbours, and they shall receive thee.”

III. Inside of the Mountain of the House was a reticulated wall ten handbreadths high; and in it were thirteen breaches broken down by the Greek kings. The Jews restored, and fenced them, and decreed before them thirteen acts of obeisance. Inside of it was the Chel ten cubits broad, and twelve steps were there. The height of each step was half a cubit, and the breadth half a cubit. All the steps there were in height half a cubit, and in breadth half a cubit, except those of the porch. All the doors there were in height twenty cubits, and in breadth ten cubits, except that of the porch. All the gateways there had doors, except that of the porch. All the gates there had lintels,

except Tadi; there two stones inclined one upon the other. All the gates there were transformed into gold, except the gate Nicanor, because to it happened a wonder, though some said "because its brass glittered like gold."

IV. And all the walls there were high, except the eastern wall, that the priest who burned the heifer might stand on the top of the Mount of Olives and look straight into the door of the sanctuary when he sprinkled the blood.

V. The court of the women was one hundred and thirty-five cubits in length, by one hundred and thirty-five in breadth. And in its four corners were four chambers, each forty cubits square, and they had no roofs; and so they will be in future, as is said, "Then he brought me forth into the utter court, and caused me to pass by the four corners of the court; and, behold, in every corner of the court there was a court."* In the four corners of the court there were courts smoking, yet not smoking, since they were roofless. And what was their use?—the south-east one was the chamber of the Nazarites, for there the Nazarites cooked their peace-offerings, and polled their hair, and cast it under the pot. The north-east was the chamber for the wood, and there the priests with blemishes gathered out the worm-eaten wood. And every stick in which a worm was found, was unlawful for the altar. The north-west was the chamber for the lepers. The south-west? Rabbi Eleazar, the son of Jacob, said: "I forget for what it served." Abashaul said, "There they put wine, and oil." It was called the chamber of the house of oil. And it was open at first and surrounded with lattice work, that the women might see from above, and the men from beneath, lest they should be mixed. And fifteen steps, corresponding to the fifteen steps in the Psalms, ascended from it to the court of Israel, upon them the Levites chanted. They were not angular, but deflected like the half of a round threshing-floor.

VI. And under the court of Israel were chambers open to the court of the women. There the Levites deposited their harps, and psalteries, and cymbals, and all instruments of music. The court of Israel was one hundred and thirty-five cubits long, and eleven broad; and likewise the court of the Priests was one hundred and thirty-five cubits long, and eleven broad. And pointed rails separated the court of Israel from the court of the Priests. Rabbi Eleazar, the son of Jacob, said: "There was a step a cubit high, and a daïs placed over it; and in it were three steps each half a cubit in height." We find that the Priests' court was two and a half cubits higher than the court of Israel. The whole court was one hundred and eighty-seven cubits in length, and one hundred and thirty-five cubits in breadth, and the thirteen places for bowing were there. Abajose, the son of Chanan, said: "In front of the thirteen gates." In the south near to the west were the upper gate—the gate of flaming, the gate of the first-born—the water-gate. And why is it called the water-gate?—because through it they

* Ezekiel xlvi. 21.

bring bottles of water for pouring out during the feast of tabernacles. Rabbi Eleazar, the son of Jacob, said: "Through it the water returned out, and in future it will issue from under the threshold of the house." And opposite them in the north near to the west the gate of Jochania—the gate of the offering, the gate of the women, the gate of music. And "why was it called the gate of Jochania"?—"because through it Jochania went out in his captivity." In the east was the gate Nicanor and in it two wickets, one on the right, and one on the left, and two in the west, which were nameless.

OUR BEAUTY BE UPON THEE, O MOUNTAIN OF THE HOUSE.

I. The altar was thirty-two cubits square. It ascended a cubit and receded a cubit. This was the foundation. It remains thirty cubits square. It ascended five cubits, and receded one cubit. This is the circumference. It remains twenty-eight cubits square. The place for the horns was a cubit on either side. It remains twenty-six cubits square. The place of the path for the feet of the priests was a cubit on each side. The hearth remains twenty-four cubits square. Rabbi Jose said: "At first it was only twenty-eight cubits square." It receded, and ascended until the hearth remained twenty cubits square; but when the children of the captivity came up, they added to it four cubits on the north, and four cubits on the west like a gamma, it is said; and the altar was twelve cubits long by twelve broad, being a square. One could say it was only "a square of twelve"* as is said. Upon its four sides we learn that it measured from the middle twelve cubits to every side. And a line of red paint girdled it in the midst to separate the blood above from the blood below. And the foundation was a perfect walk along the north side, and all along on the west, but it wanted in the south one cubit, and in the east one cubit.

II. And in the south-western corner were two holes as two thin nostrils, that the blood poured upon the western and southern foundation should run into them; and it commingled in a canal, and flowed out into the Kidron.

III. Below in the plaster in the same corner there was a place a cubit square, with a marble tablet, and a ring fastened in it. Through it they descended to the sewer, and cleansed it. And there was a sloping ascent to the south of the altar thirty-two cubits long by sixteen broad. In its western side was a closet where they put the birds unmeet for the sin offering.

IV. Either the stones of the sloping ascent, or the stones of the altar, were from the Valley of Bethcerem.† And they digged deeper than virgin soil, and brought from thence perfect stones over which iron was not waved. For the iron defiles by touching. And a scratch defiles everything. In any of them a scratch defiled, but the others were lawful. And they whitewashed them twice in the year, once at

* Ezekiel xliii. 16.

† House of the Vineyard.

the Passover, and once at the feast of tabernacles. And the sanctuary was whitewashed once at the Passover. The rabbi said "every Friday evening they whitewashed them with a mop on account of the blood." They did not plaster it with an iron trowel "mayhap it will touch and defile." Since iron is made to shorten the days of man, and the altar is made to lengthen the days of man. It is not lawful that what shortens should be waved over what lengthens.

V. And there were rings to the northern side of the altar, six rows of four each, though some say four rows of six each. Upon them they slaughtered the holy beasts. The slaughter house was at the north side of the altar, and in it were eight dwarf pillars with a beam of cedar wood over them. And in them were fastened iron hooks—three rows to each pillar; upon them they hung up the bodies; and skinned them upon marble tables between the pillars.

VI. The laver was between the porch and the altar, but inclined more to the south. Between the porch and the altar were twenty-two cubits, and there were twelve steps; the height of each step was half a cubit, and its breadth a cubit—a cubit—a cubit—a landing three cubits—a cubit—a cubit, and a landing three cubits; and the upper one a cubit—a cubit, and the landing four cubits. Rabbi Jehudah said "the upper a cubit—a cubit, and the landing five cubits."

VII. The doorway of the porch was forty cubits high, and twenty broad; over it were five carved oak beams. The lower one extended beyond the doorway a cubit on either side; the one over it extended a cubit on either side. It results that the uppermost was thirty cubits, and between each one there was a row of stones.

VIII. And stone buttresses were joined from the wall of the sanctuary to the wall of the porch, lest it should bulge; and in the roof of the porch were fastened golden chains upon which the young priests climbed up, and saw the crowns; as is said, "and the crowns shall be to Helem, and to Tobijah, and to Jedaiah, and to Hen the son of Zephaniah, for a memorial in the temple of the Lord."* And over the doorway of the sanctuary was a golden vine supported upon the buttresses. Every one who vowed a leaf, or a berry, or a cluster he brought it and hung it upon it. Said Rabbi Eleazar, the son of Zadok, "it is a fact, and there were numbered three hundred priests to keep it clear."

' OUR BEAUTY BE UPON THEE, O ALTAR.

I. The doorway of the sanctuary was twenty cubits in height, and ten in breadth, and it had four doors—two within and two without, as is said—"two doors to the temple and the holy place."† The outside doors opened into the doorway to cover the thickness of the wall, and the inside doors opened into the sanctuary to cover the space behind the doors, because the whole house was overlaid with gold, excepting behind the doors. Rabbi Judah said, "they stood in the middle of the

* Zechariah vi. 14.

† Ezekiel xli. 23

doorway and like a pivot these folded behind them two cubits and a half; and those two cubits and a half. Half a cubit and a jamb on this side, and half a cubit and a jamb on the other side." It is said "two doors to two doors folding back—two leaves to one door and two leaves to the other."*

II. And the great gate had two wickets—one in the north, and one in the south. Through the one in the south no man ever entered; and with regard to it Ezekiel declared—as is said—"The Lord said unto me, This gate shall be shut, it shall not be opened, and no man shall enter in by it, because the Lord, the God of Israel, hath entered in by it, therefore it shall be shut."† The priest took the key and opened the wicket, and went in to the little chamber, and from the chamber to the sanctuary. Rabbi Judah—"he went in the thickness of the wall until he found himself standing between the two gates, and he opened the outside gates from inside, and the inside from outside."

III. And there were thirty-eight little chambers, fifteen in the north, fifteen in the south, and eight in the west. The northern and southern ones were placed five over five, and five over them; and in the west three over three and two over them. To each were three doors. One to the little chamber to the right, one to the little chamber to the left, and one to the little chamber over it. And in the north-eastern corner were five gates, one to the little chamber on the right and one to the little chamber over it, and one to the gallery, and one to the wicket, and one to the sanctuary.

IV. The lowest row was five cubits, and the roofing six cubits, and the middle row six and the roofing seven, and the upper was seven—as is said, "the nethermost chamber was five cubits broad, and the middle six cubits broad, and the third seven cubits broad."‡

V. And a gallery ascended from the north-eastern corner to the south-western corner. Through it they went up to the roofs of the little chambers. One went up in the gallery with his face to the west. So he proceeded all along the northern side till he reached the west. On reaching the west he turned his face southward going along the west side till he reached the south. On reaching the south with his face to the east he went along the south side till he arrived at the door of the upper story, because the door of the upper story opened in the south side; and at the door of the upper story were two cedar beams. By them they went up to the roof of the upper story, and on its summit rails separated between the holy and the holy of holies; and in the attic trapdoors opened to the holy of holies. Through them they let down the workmen in boxes, lest they should feast their eyes in the holy of holies.

VI. The sanctuary was a square of one hundred cubits, and its height one hundred. The foundation six cubits, and the height of the wall forty cubits, and the string course§ one cubit, and the rain

* Ezekiel xli. 24.

† xliv. 2.

‡ 1 Kings vi. 6,

§ Curiously graven and gilt.

channel two cubits, and the beams one cubit, and the covering plaster one cubit; and the height of the upper story was forty cubits, and the string course one cubit, and the rain channel two cubits, and the beams one cubit, and the covering plaster one cubit, and the battlement three cubits, and the scarecrow one cubit. Rabbi Judah said "the scarecrow was not counted in the measurement, but the battlement was four cubits."

VII. From east to west were one hundred cubits. The wall of the porch five, and the porch eleven, and the wall of the sanctuary six, and the interior forty, and the partition space between the vails one, and the holy of holies twenty cubits; the wall of the sanctuary was six, and the little chamber six, and the wall of the little chamber five. From north to south were seventy cubits. The wall of the gallery five, the gallery three, the wall of the little chamber five, the little chamber six, the wall of the sanctuary six, its interior twenty; the wall of the sanctuary six, the little chamber six; the wall of the little chamber five, the place for the descent of the water three, and the wall five cubits. The porch was extended beyond it fifteen cubits in the north, and fifteen in the south; and this space was called "the house of the instruments of slaughter," because the knives were there deposited. And the sanctuary was narrow behind and broad in front and it was like a lion, as is said, "Ho! Ariel the city where David dwelt,* as a lion is narrow behind and broad in front, so the sanctuary is narrow behind and broad in front."

OUR BEAUTY BE UPON THEE, DOOR OF THE SANCTUARY.

I. The length of the whole court was one hundred and eighty-seven cubits; the breadth one hundred and thirty-five. From east to west one hundred and eighty-seven. The place for the tread of the feet of Israel was eleven cubits; the place for the tread of the priests eleven cubits; the altar thirty-two; between the porch and the altar twenty-two cubits; the temple one hundred cubits; and eleven cubits behind the House of Atonement.

II. From north to south one hundred and thirty-five cubits; from the sloping ascent to the altar sixty-two; from the altar to the rings eight cubits; the space for the rings twenty-four; from the rings to the tables four; from the tables to the pillars four; from the pillars to the wall of the court eight cubits. And the remainder lay between the sloping ascent and the wall and the place of the pillars.

III. In the court were six chambers—three in the north and three in the south. In the north the chamber of salt—the chamber of Parva—the chamber of washers. In the chamber of salt they added salt to the offering; in the chamber of Parva they salted the skins of the offering; and upon its roof was the house of baptism for the high priest on the day of atonement. In the chamber of washers they cleansed the inwards of the offerings; and from thence a gallery extended up to the top of the house of Parva.

* Isaiah xxix. 1.

IV. In the south were the chamber of wood—the chamber of the captivity—and the chamber of hewn stone. The chamber of wood—said Rabbi Eleazar the son of Jacob, “I forget for what it served.” Abashaul said, “the chamber of the high priest was behind them both, and the roof of the three was even. In the chamber of the captivity was sunk the well with the wheel attached to it, and from thence water was supplied to the whole court. In the chamber of hewn stone the great sanhedrim of Israel sat, and judged the priesthood, and the priest in whom defilement was discovered clothed in black and veiled in black went out and departed; and when no defilement was found in him clothed in white and veiled in white he went in and served with his brethren the priests. And they made a feast-day because no defilement was found in the seed of Aaron the priest, and thus they said “Blessed be the place; blessed be he since no defilement is found in the seed of Aaron; and blessed be He who has chosen Aaron and his sons to stand and minister before the Lord in the house of the Holy of Holies.”

OUR BEAUTY BE UPON THEE, WHOLE COURT; AND COMPLETION TO THEE, TRACT MEASUREMENTS.

NOTE.—The Committee are not responsible for the accuracy of the above translation, which is printed *verbatim* from the pamphlet presented by Captain Warren.

REMARKS ON THE CLIMATE OF JERUSALEM.*

FROM OBSERVATIONS MADE BY DR. THOMAS CHAPLIN, FOR THREE YEARS AND FOUR MONTHS, BEGINNING 1ST NOVEMBER, 1863, AND ENDING 28TH FEBRUARY, 1867.

Lat. 31° 46' 45" N.; Long. 35° 13' 0" E.; Height above the Sea, 2,500 feet. Hour of Observation, 9 a.m.

BY ALEXANDER BUCHAN, SECRETARY TO THE SCOTTISH METEOROLOGICAL SOCIETY.

WHILE on a tour through Palestine in the spring of 1863, Dr. Keith Johnston, the Society's honorary secretary, made arrangements with Dr. Thomas Chaplin for making meteorological observations at Jerusalem. The Board of Trade most cordially co-operated with the Society in the supply of instruments, and forwarded to Dr. Chaplin first two standard barometers, and then other two to replace the former ones, which had been broken, or otherwise rendered useless. All the instruments sent were verified. The thermometers have been kept in a louvre-boarded box of the pattern designed by Mr. Thomas Stevenson, C.E., and in extensive use among the Society's observers. Thus

* Reprinted by permission from the *Journal of the Scottish Meteorological Society*. A second *resumé* of Dr. Chaplin's observations for this society is in process of preparation, and has been also kindly promised for this journal.

every care was taken to procure observations of the most trustworthy description. The observations commenced in November, 1863, and have been uninterruptedly carried on since. They are made daily at 9 a.m. Abstracts of two years' observations accompany this paper, in Table I., in continuation of previous abstracts. And in Table II. are given, for each month and for the year, the means and extremes calculated on an average of the three and one-third years during which the observations have been carried on,—a space of time sufficient to furnish materials for a first and close approximation to the climate of that interesting country.

ATMOSPHERIC PRESSURE.

The mean annual pressure of the atmosphere, reduced to $32^{\circ}0$, is 27.391 inches. There is one maximum and one minimum period in the year; the maximum occurring in January, when the mean pressure is 27.451; and the minimum in July, when it is 27.278. Thus the difference between the months of greatest and least mean pressure is 0.113 inches. At the level of the sea the difference between the months of extreme pressure would be much greater, because in summer the atmosphere is increased in volume by the higher temperature, and consequently a considerable part of it is thrust up above such elevated stations as Jerusalem (2,400 feet), thus increasing the summer pressure. Reducing the monthly averages to sea level, the annual mean pressure is 30.052 inches,—the maximum 30.211 in January, and the minimum 29.870 in July; thus giving a difference of 0.341 between the highest and lowest monthly pressures.

The highest mean pressure, reduced to $32^{\circ}0$ only, of any of the forty months, was 27.507 in February 1867, and the lowest 27.267 in July 1867; or, reduced to sea-level, 30.296 and 29.860 respectively, thus giving, in the latter case, a difference of 0.436.

The highest single reading that has been observed was 27.680, and it occurred on the 13th January, 1866; and the lowest 26.914, occurring with a severe thunderstorm and heavy rainfall on the 3rd February, 1865. The difference between these extremes is 0.766. The highest reading during the two hottest months, July and August, was 27.395 in August 1865, and the lowest 27.167 in July 1865, the difference being 0.228.

The greatest monthly range occurs in February, being 0.482; in Scotland the greatest occurs also in February, but it is very much greater, being 1.557. The least monthly range occurs in July, when it is only 0.149; in Scotland in the same month it is 0.897. These figures represent very well the average state of the atmosphere in both countries—the disturbed condition of the atmosphere in the one being the accompaniment of fickle and capricious weather, while in the other the weather is comparatively constant and uniform, and the atmosphere is subject to little variation.

It will be observed that the relations between pressure and tem-

perature are very intimate. The pressure is highest during the coldest months; it thence continues to fall as the temperature rises to the lowest point in the warmest month, and then rises as the temperature falls till it again reaches the maximum in the coldest month. This points out clearly that the atmospheric pressure in Palestine is regulated principally by the annual march of the temperature of the air. The following are the mean pressures for January and July at several places in Asia, reduced only to 32°·0:—Beyrout, 29·897 and 29·535; Astrachan, 30·206 and 29·599; Barnaul, 29·816 and 29·117; Irkutsk, 28·774 and 28·187; Pekin, 30·244 and 29·470; Calcutta, 30·101 and 29·409; and Aden, 29·823 and 27·482. These low summer pressures are caused by the circumstance that the continent of Asia and eastern Europe is at this season heated to a degree much exceeding the temperature of all adjoining regions; consequently from it, as from a furnace, heated air ascends and flows over into neighbouring regions, and thus the pressure over the heated district is diminished. And as in winter the temperature of the same district is very low, the air, being condensed by the cold, settles there, or is stored up during these months, and the pressure is consequently very high. It follows that the nearer we approach the centre of this vast plain, the greater is the difference between the summer and winter pressures. It is the geographical position of Palestine, in reference to this region, with its extremes of temperature and pressure, which furnishes the key to its climate.

In Scotland, on the other hand, the maximum pressure happens in spring, when the polar current is passing over the country on its way to the south; and the pressure is depressed below the average, not during the warm months, but during the *rainy months* of the year. The two causes which bring about a diminution of atmospheric pressure are, 1st, An increase in the temperature of the air over an extensive region, so as to raise it considerably over that of surrounding districts; 2nd, Or an increase in the rainfall over an extensive space of the earth's surface; so that, by the heat disengaged from the vapour when condensed into rain, the temperature of the atmosphere is raised, and the pressure is still further diminished by the quantity of vapour present in the atmosphere. When both causes conspire, that is, when the highest temperature and the greatest rainfall occur in the same months, as in Hindostan and China, the difference between the summer and winter pressure is very great.

On the other hand, the rainfall in Palestine occurs during the winter months, or during the months of greatest pressure. It must not, however, be inferred from this coincidence that the height of the barometer is not influenced by the rainfall, the contrary being the case. I have carefully compared the rainfall during the forty months with the state of the barometer at the time, and find that the barometer fell before or during the rain in every case, except one or two, when the fall of rain happened to be slight. Not only so, but for some time at the com-

mencement and at the end of the dry season, when no rain falls, and the sky is seldom for any length of time perfectly free of clouds, it frequently occurs that the barometer falls more or less, when thundery-looking but rainless clouds appear, when cumulus clouds sail slowly past, and even when the delicate cirrus is pencilled on the deep blue sky. But during the rainless months, when no cloud is seen for many weeks, the variations of the barometer fall to a minimum.

In this country a fall of the barometer to the extent of two or three tenths of an inch below the average, does not necessarily imply any change of weather; but in Palestine a fall of two-tenths of an inch portends a storm of wind and rain, or a thunderstorm of some magnitude.

TEMPERATURE.

The mean annual temperature at Jerusalem is $63^{\circ}4$. Hence, if $1^{\circ}0$ be allowed for every 300 feet in elevation, the mean temperature near the level of the sea would be about $71^{\circ}7$, which is about $1^{\circ}7$ higher than is laid down in Dove's chart of the isothermals of the globe; but since the lines in that part of the earth are laid down from very meagre data, they probably require some slight alteration.

The highest mean monthly temperature is $76^{\circ}2$ in August, and the lowest $47^{\circ}2$ in January, which gives a difference of $29^{\circ}0$ between the hottest month and the coldest month. The temperature of February is nearly as low as that of January; and that of July nearly as high as August. The temperature of March is $58^{\circ}4$, and April, $59^{\circ}8$, both months having thus nearly the same temperature; September $72^{\circ}2$, and October $71^{\circ}8$, are also nearly alike. Also, the temperature of December, $49^{\circ}9$, comes near that of January and February, the two coldest months; and the temperature of June, $73^{\circ}0$, near that of the two warmest months which follow. The great annual increase in the temperature takes place from February to March, $48^{\circ}8$ to $54^{\circ}4$; and from April to May, $59^{\circ}8$ to $67^{\circ}8$. And the great annual fall of the temperature from October to November, $71^{\circ}8$ to $61^{\circ}0$; and November to December, $61^{\circ}0$ to $49^{\circ}9$.

This singular distribution of the temperature through the months of the year, so different from what is observed in Great Britain, will no doubt be somewhat modified when the average is made for a greater number of years; but as in each successive year this remarkable partition of the temperature has been pretty constantly maintained, the presumption is, that any such modification will be slight.

The increase from February to March is chiefly brought about by the higher temperature of the day. Thus, while the temperature of the night only increases from $42^{\circ}3$ to $49^{\circ}4$, or $7^{\circ}2$, that of the days increases from $55^{\circ}4$ to $67^{\circ}5$, or $12^{\circ}1$. This increase is therefore caused by the greater strength of the sun's rays, which is still further increased by the gradual cessation of the rainfall, and the consequent clearing of the sky from clouds.

In May, when the sky may be considered as now cleared of clouds altogether, the next great increase of temperature takes place, which, as in the previous case, is mostly caused by the greater heat of the days: for the mean of the nights increases from $50^{\circ}0$ to $56^{\circ}5$, or $6^{\circ}5$, whereas the mean of the days increases from $69^{\circ}6$ to $79^{\circ}2$, or $9^{\circ}4$.

As compared with the three winter months, the wind in March, April, and May blows less frequently from the S.W. and W., and more frequently from N.W., N., N.E., and E. points of the compass, arising from the general flow southwards of the air which accumulates during the winter months in Central Asia and the Arctic regions. Thus, as in Great Britain, the prevalence of the dry polar current clears away the rain and clouds, and ushers in clear weather, strong sun-heat, and a rapidly augmenting temperature.

In the month of August there are three points of interest which are suggested by the figures in Table II.,—viz., the temperature is at the maximum, the atmospheric pressure on the continent of Asia and in eastern Europe is at the minimum, and the winds in Palestine are almost wholly from the N.W. (23 out of 31 days). Suppose a storm, with the usual barometric depression, to overspread Asia, then the wind in Palestine, in reference to this storm, would be N.W., if it corresponded with the direction of the wind in every storm I have hitherto examined. Now, observations prove that at this time atmospheric pressure is low over Asia, and much lower in the interior than in Palestine and Europe. May it not then be inferred that the N.W. wind of Palestine is the result of the low barometer in Asia, as the wind flows round and in upon that region of low pressure in a spirally in-moving course? However this may be, it is certain that the continued predominance of north-westerly and northerly winds in Palestine during the summer months is a principal cause of the rainless character of those months, since they must be well drained of their moisture in passing over the mountains of Asia Minor, and be still further dried in travelling southwards into warmer regions.

The high temperature of October is a marked feature of the climate of Jerusalem. This high temperature appears to be due to the prevailing winds. As already stated, the winds in summer are chiefly N.W. and N.; but in the winter months the S.W. and W. prevail to a very considerable extent. The change (see Table II.) occurs during October and November, and takes place through the E. and S.E. points of the compass. Thus during these months the winds arrive in Palestine from Arabia, and as they bring with them the higher temperature of that region, they may be considered as prolonging the summer of Palestine into October.

Since in winter atmospheric pressure is high in Asia, the winds in Palestine are not affected by it; consequently, the N.W. wind does not preponderate, and the S.W. frequently prevails. In other words, as there is no cause during winter to divert the winds from their normal course, the equatorial current, as well as the polar current, has free scope to run its course over Palestine.

The highest mean temperature of any of the forty months was $77^{\circ}0$ in July 1866, and the lowest $42^{\circ}8$ in January 1864, thus giving a difference of $34^{\circ}2$ between the temperatures of the two extreme months. The mean monthly temperature of $42^{\circ}8$ was exceptionally low; but the high mean temperature of $77^{\circ}0$ has been nearly reached repeatedly during the summer months.

Extreme Temperatures.—The highest temperature recorded was $102^{\circ}5$, on 27th June, 1865, and the lowest $25^{\circ}0$, on 20th January, 1864, the difference being $77^{\circ}5$.

High Temperatures.—On the 27th June, when the temperature in shade rose to $102^{\circ}5$, the lowest during the night only fell to $76^{\circ}8$, thus giving a mean temperature for the day of $89^{\circ}6$. On the same day, at 9 a.m., the dry-bulb was $90^{\circ}1$, and the wet $64^{\circ}0$; hence, by calculation, the dew-point was $47^{\circ}8$, and the humidity of the air 22, saturation being 100. This high temperature, therefore, occurred along with an excessive dryness of the atmosphere, when the amount of vapour being small, the sun's rays were little obstructed in their course. The wind was N.W., and a haze was spread round the horizon. On the 19th of the same month, the temperature rose to $101^{\circ}0$, when the air was nearly as dry, a haze was in the horizon, and the wind N., but so light as to be regarded as a calm. Dr. Chaplin remarks that this great heat began at midnight, and the weather continued intolerably hot and oppressive all day; but a pleasant breeze from the N. sprung up in the afternoon.

A remarkable period of hot weather occurred from the 7th to the 24th October, 1865. What renders this period noteworthy is that, at the same time, *cholera prevailed very badly*. During the whole 18 days, the sky was cloudless, but overspread with thin haze; the wind was from the N.W., N., and E., but so light, except on the 15th and 16th, when it blew a light air from the E., as to be considered a calm. The highest temperature was $94^{\circ}0$, and on 11 days it rose to at least $90^{\circ}0$. During the period the mean of the maximum temperatures was $89^{\circ}1$, and of the minimum temperatures $65^{\circ}8$, thus giving a mean temperature for the 18 days of $77^{\circ}4$, or a little higher than the temperature of the warmest month recorded. This high temperature, and calm, close, hazy atmosphere had, no doubt, some influence in promoting the spread of cholera at the time.

Another period of warm weather occurred from the 27th May to the 2nd June, 1866. This period is also remarkable for the plague of locusts which infested the country at the time, and "ate up everything green." During the week it lasted, the temperature rose, on the 29th, to $96^{\circ}0$; the mean of the highest day temperatures was $90^{\circ}2$, and of the lowest night temperatures $61^{\circ}6$, thus giving a mean temperature of $75^{\circ}9$, and an enormous daily range of $28^{\circ}6$. The air during the first six days was excessively dry; the mean of the dry-bulb being $84^{\circ}3$, and of the wet $61^{\circ}4$, it follows that the mean dew-point was $46^{\circ}3$, and the mean humidity 26. The wind was N.W. and light. A change took

place on the 1st June, when the wind shifted to S.W., still continuing light; three-fourths of the sky was covered with cirro-stratus clouds, and the air became close and oppressive. On the following morning, the 2nd, the barometer had fallen from 27·305 to 27·148, an unusual fall at this season; and the wind again shifted back to N.W., and blew with the strength of a gale (5 on the scale 0 to 6). At the same time the dew-point rose to 57°·0, and the humidity to 56; and during the day the temperature rose only to 74°·4; on the previous day it had risen to 91°·2.

Low Temperatures.—The coldest period occurred from the 16th January to the 5th February, 1864, and was the only time when the temperature fell so low as to *freeze* the ground, and cover pools of water and ponds with *ice*. On the 17th, ice appeared on the garden path; on the 18th and 19th the water in the cup of the hygrometer was frozen, and ice a quarter-inch thick was formed; on the 20th, the temperature fell to 25°·0, and on the following morning the ice was one inch thick; and on the 22nd, the ice remained all day. Ice was observed again on the 29th and 30th, and on the 3rd, 4th, and 5th February, after which the temperature rose.

On the 20th January, the temperature during the day did not rise above 37°·0, and the mean temperature of the day was only 31°·0. The dry-bulb was 32°·0, the wet 27°·2; and hence the dew-point was only 16°·1, and the humidity 45. During the three cold days of February (the 3rd, 4th, and 5th), the mean of the dry-bulb was 43°·2, of the wet 34°·3; and hence the dew-point was 23°·7, and the humidity 45. The wind was E. and N.E., the air nearly calm, and the sky clear. Thus the periods of greatest cold, as well as the times of greatest heat, were accompanied with a dry, calm atmosphere, which thus allowed free scope to the escape of heat from the earth by terrestrial radiation. During the winter of 1865, the temperature occasionally fell to 38°·0 and 39°·0 from the 13th January to the 3rd March, the lowest during the whole winter being 36°·0 on the 26th February. On that day the dew-point was 32°·6, the lowest for the season, during which no frost or ice appeared. In the winter of 1865-6, ice was found outside the city on the 14th December, 1865, when the temperature fell to 36°·8. From this date to the 2nd February, 1866, the temperature occasionally fell to from 37°·0 to 39°·0, and on New Year's Day to 35°·0, the lowest during the season. On the 20th February it fell to 37°·0; but, except on the 14th December, no frost occurred, and no ice was formed in the city during the winter. In the winter of 1866-7 the temperature fell occasionally from 37°·0 to 39°·0 from the 7th January to 26th February. The lowest temperature during the time was 35°·8 on the 8th January; on the previous morning the temperature was 37°·0; and hail fell during the night, and "perhaps" snow. Neither frost nor ice was observed this winter.

Range of Temperature.—The annual mean daily range of the temperature is 18°·7; the least is about 12°·5, in January and December; and the greatest about 22°·5, from May to October inclusive, that is,

during the dry season. The least in any month was $10^{\circ}9$, in January 1866, which was also the month when the mean humidity was greatest, being 80. The greatest range was $24^{\circ}6$, during October 1865. This is the month in which, as already remarked, cholera prevailed, and the meteorological elements were in a very abnormal condition. The nearest approach to this great range was $23^{\circ}6$ in May 1866, and $23^{\circ}5$ in August 1864. In these two months the humidity was at the monthly minimum, 39.

THE MOISTURE OF THE ATMOSPHERE.

To the cases of excessive drought already referred to, may be added other two. On the 2nd of April, 1864, the dry-bulb read $81^{\circ}0$, the wet $56^{\circ}0$; hence the dew-point was $39^{\circ}0$, and the humidity 23. On the 29th May, 1864, at 2 p.m., the dry-bulb was $102^{\circ}2$, the wet $70^{\circ}0$; and hence the dew-point was $52^{\circ}0$, and the humidity about 14. At 9 a.m. on the same day, the temperature of the air was $86^{\circ}7$, of the dew-point $50^{\circ}7$, and the humidity 29. Of the drying qualities of this desiccated atmosphere we, in this moist British climate, can form little conception.

On the other hand, during the rainy season, the air is sometimes surcharged with moisture to a degree which is not exceeded even in Ireland, or the west coast of Great Britain. Thus, on the 14th February, 1864, the dry-bulb was $50^{\circ}0$, the wet $50^{\circ}0$, and humidity therefore 100. On this occasion Dr. Chaplin remarks that "stones, furniture, and everything were damp." The range of temperature for the day was only $3^{\circ}5$, and a good deal of rain fell. From the 13th the barometer fell on successive days as follows: 27.522, 27.422, 27.302, and to 27.112 on the 16th.

From the column of the elastic force of vapour, it is seen that there is most vapour dissolved in the atmosphere in July and the other summer months; but, owing to the high temperature as regards the quantity of vapour, it is not available for vegetation, except during night in the form of dew. The column of humidity shows, that during these months the fall of rain is impossible, the point of saturation being so far below that of the temperature; but during winter the humidity rises to an average of 72, and on particular days to 90, or even 100, when rain falls in copious abundance.

THE RAINFALL.

As regards the rainfall, the climate of Palestine is divided into a wet season and a dry season. The dry season includes the months of May, June, July, August, and September, during which no rain falls; or if any falls in the beginning or end of this period, it is only a few drops that cannot be measured with the gauge. The latter half of April, and the first half of October, may also be included in the dry season.

To the inhabitants of the country, rain is the most important element of the weather, inasmuch as the productiveness of the harvest is altogether dependent on the amount of the rain and the times of the year

when it falls. It accordingly held a prominent place among the promises made to Israel. In Deut. xi. 13, 14, they are promised that if they would love the Lord their God, and serve Him with all their heart and with all their soul, that He would give them the rain of the land in its due season, the first rain and the latter rain, that they might gather in their corn, and their wine, and their oil.

The time of the "first," "former," or "early" rain, so often referred to in Scripture, was usually some time in October, the seed-time of the year in Palestine. Its value, agriculturally, was therefore very great, since, owing to the parched state of the soil on which no rain had fallen for five months, the springing of the seed could not take place till rain fell.

The time of the "latter" rain was the latter half of March and the first half of April, or just before the maturing and ripening of the grain. In November, when all the seed is put into the soil, the mean temperature is still $61^{\circ}0$; hence, with genial rains and this high temperature, which is higher than we in Scotland enjoy even in the warmest summer months, except on rare occasions, the grain springs luxuriantly. For the next three months the temperature is only as high as it is in this country from the middle of April to the middle of May,—that is, it is only sufficient for the growth of the plants, but quite inadequate for their flowering and ripening; and the same remark is applicable to the low plains of Palestine, except perhaps the plains of Jericho, which are below the level of the sea. Hence, if no rain falls after February, or if the latter rain fails, the crops are scorched up before flowering, and, producing nothing but straw and chaff, famine is the terrible consequence. But if frequent showers accompany the increasing heat in March and April, they attain their full maturity; and as they are gathered in after the dry season has commenced, the grain is stored past in the finest condition possible.

Rainy Season of 1863-4.—As the observations began in November 1863, we cannot go further back than the 1st of the month. In this month rain fell only on two days, 0·3 inch falling on the 10th; the rains began only on the 11th December, slight showers only having fallen previously. Rain fell copiously from the 3rd to the 5th March, and frequent showers, occasionally heavy, from the 13th to the 26th April, after which only a few drops fell. Amount of rain, 8·84 inches.

Rainy Season of 1864-5.—On 8th September 0·08 inch of rain fell; in October only a few drops; and the rainy season began on the 19th November, rain falling in torrents (2·28 inches) on the 25th and 26th. At the end of the first week in March, in the middle of April, and in the first week of May, seasonable showers fell. Amount of rainfall, 14·80. *Rainy Season of 1865-6.*—No rain fell, except a few drops, till 14th November, from which to the 23rd December genial but not heavy rains fell at intervals. From the latter date to the 12th January, 8·65 inches fell. Copious showers fell on the 1st and 2nd, and from the 16th to the 19th March; and refreshing showers on the 3rd and 4th, and 20th and 21st April. After this date the rain ceased. Total amount,

17·87 inches. *Rainy Season of 1866-7 to end of February.*—After a slight shower on the 4th October, the rainy season began on the 20th of that month, on which, and four following days, 1·51 inch fell. For the next eleven weeks moderate showers fell frequently; but from the 6th January to the end of February the fall of rain was excessive. Amount of rain 20·62 inches, of which 14 $\frac{3}{4}$ inches fell in the last seven weeks.

During the rainy season, from 1 to 1 $\frac{1}{2}$ inches of rain not unfrequently fall in a day; but sometimes these large amounts are greatly exceeded. The largest fall on any day during the period over which the observations extend was 3·175 inches, on the 26th January, 1867. Also on the four days from the 7th to the 10th of the same month, 5·25 inches fell. It was probably in such great rains as these that the people of Israel sat trembling in the street of the house of God when Ezra stood up and rebuked them for their trespasses (Ezra x. 9). If it be remembered that this took place about the beginning of December, when the weather often resembles a cold blustering day of March, the scene, with the pathetic appeal of the people to be allowed to return to their houses, will be better appreciated.

After heavy rains, Bier Eyub, the well of En Rogel of Scripture, flows over in a copious stream to the Kedron. This happened on the following occasions: 9th January, 1864; 8th January, 1866; 9th and 26th January and 26th February, 1867,—five times in all.

All the instances of the rainfall have been carefully compared with the direction of the wind at the time. The result shows, with scarcely an exception, that rain falls uniformly with W. and S.W. winds. When the rain has cleared away, the wind has at the same time shifted to the N.W., N., or N.E., and the air becomes drier, which, by increasing evaporation, chills still further these chilling winds of the winter months; and hence the appropriateness of the proverb: "The north wind driveth away rain; so doth an angry countenance a backbiting tongue" (Prov. xxv. 23).

Hail fell on four occasions, viz.—15th April and 16th December, 1865, and 7th January and 9th February, 1867.

Thunderstorms occurred on 3rd February, 14th and 15th April, 3rd and 8th May, 1st and 3rd November, and 24th December, 1865; 11th April and 10th November, 1866; and 9th February, 1867,—in all eleven thunderstorms. On the last occasion 1·30 inch of rain (and melted hail) fell, the wind blew with the violence of a hurricane, and the barometer fell from 27·564 to 27·327, about the largest fall in twenty-four hours that occurred during the period of observation.

The *Sirocco* occurred twice. On the 20th March, 1864, it advanced from the south, and prevailed all night till the morning of the 21st; maximum temperature, 78°·2; minimum, 58°·6; mean, 68°·4; dew-point, 40°·6; and humidity, 32. A sirocco from the south-east, characterised by Dr. Chaplin as very bad, occurred on the 1st October, 1864, when the temperature rose to 94°·1; the dew-point at 9 a.m. being 49°·8, and the humidity 27. It was succeeded by a slight shower.†

ABSTRACT OF METEOROLOGICAL OBSERVATIONS made at JERUSALEM, in Syria, from 1st March, 1865, to 28th February, 1867; and MONTHLY AVERAGES and EXTREMES on a Mean of three years and four months, ending 28th February, 1867. Observations made by Dr. THOMAS CHAPLIN. Lat. $31^{\circ} 46' 45''$ N.; long. $35^{\circ} 13' 0''$ E. Height above the sea, 2,500 feet.

TABLE I.—Monthly Means and Extremes from March 1865, to February 1867.

Months.	BAROMETER.				SELF-REGISTERING THERMOMETERS. IN AIR, AND PROTECTED.								HYGROMETER.		DEDUCTIONS. Glaisher's Tables, 2nd Edition.		WINDS.								RAIN.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	Station corrected, and at 32°.	Mean reduced to sea level.	Monthly Range.	Highest in Month.	Lowest in Month.	Monthly Range.	Mean of all the		Mean of all the Lowest.	Mean Daily Range.		Mean Temperature.	Dry Bulb.		Wet Bulb.	Dew-point.	Elastic Force of Vapour.	Humidity, Sat.=100.	Number of Days it blew in certain Directions.								Mean Pressure on square foot.	Number of Days it fell.	Amount.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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TABLE II.—Monthly Means and Extremes on a mean of Three Years and Four Months, ending February 1867.

Months.	BAROMETER.			SELF-REGISTERING THERMOMETERS. IN AIR, AND PROTECTED.										HYGROMETER.		DEDUCTIONS. Glaisher's Tables, 2nd Edition.		WINDS.										RAIN.	
	Mean at Station corrected to 32°, and Sea level.	Monthly Range.	Mean reduced, to 32°, and Sea level.	Highest in Month.	Lowest in Month.	Monthly Range.	Mean of all the Highest.	Mean of all the Lowest.	Mean Daily Range.	Mean Temperature.	Dry Bulb. Deg.	Wet Bulb. Deg.	Dew-point. Deg.	Elastic Force of Vapour. Sat.=100.	Humidity, Sat.=100.	Number of Days it blew in certain Directions								Number of Days it fell.	Amount.				
																N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.			Calm or Variable.	lbs. on square foot.		
Jan.	27.451	30.211	0.420	71.1	25.0	46.1	53.4	40.9	12.5	47.2	47.2	38.7	235	73	1	6	1	2	2	8	4	3	0	0.59	5.18				
Feb.	27.426	30.177	0.482	69.5	30.9	38.6	55.4	42.3	13.1	48.8	49.6	45.3	255	72	1	3	5	1	2	4	6	0	0	0.89	3.57				
March	27.401	30.095	0.289	88.0	36.0	52.0	67.5	49.4	18.1	53.4	60.5	52.1	44.8	56	2	4	7	2	2	4	7	0	0	0.83	1.53				
April	27.359	30.045	0.321	85.6	42.0	43.6	69.6	50.0	19.6	59.8	62.6	52.8	44.5	51	2	1	3	4	2	6	4	7	0	0.67	0.86				
May	27.398	30.036	0.258	100.0	43.5	56.5	79.2	56.5	22.7	67.8	70.7	57.7	47.8	45	3	3	3	1	3	6	8	0	0.76	0.12					
June	27.370	29.970	0.257	102.5	54.2	48.3	83.0	63.6	20.0	73.0	75.9	62.8	53.5	41	3	1	2	2	0	4	10	0	1.40	0.00					
July	27.278	29.870	0.149	95.3	57.1	35.2	86.0	63.0	22.5	76.2	79.4	64.6	54.5	45	2	1	0	1	1	2	8	0	0.70	0.00					
August	27.286	29.874	0.184	101.0	56.8	44.2	87.5	60.9	22.7	72.2	73.9	63.7	56.2	46	1	0	1	0	1	1	4	23	0	0.59	0.00				
Sept.	27.374	29.937	0.210	100.0	54.0	46.0	83.6	60.9	22.5	71.8	73.8	60.7	51.1	46	8	1	0	1	0	1	6	13	0	0.53	0.00				
Oct.	27.459	30.065	0.196	94.9	46.8	48.1	83.1	60.6	22.5	61.0	61.1	53.6	47.1	324	5	3	7	3	0	3	1	9	0	0.35	0.52				
Nov.	27.448	30.126	0.276	89.0	39.0	50.0	63.9	53.1	15.8	49.9	50.9	46.4	41.7	72	1	6	10	2	0	3	4	4	0	0.32	1.50				
Dec.	27.443	30.176	0.351	71.2	35.1	36.1	56.2	43.5	12.7	49.9	50.9	46.4	41.7	72	1	4	5	2	1	8	4	6	0	0.53	3.00				
	27.391	30.052	0.233	102.5	25.0	77.5	72.8	54.1	18.7	63.4	65.4	55.9	48.1	53	30	33	49	23	11	46	59	114	0	0.70	16.28				

ANALYSIS OF GLASS FOUND IN CAPTAIN WARREN'S SHAFTS AT JERUSALEM.

THE LABORATORY, 7, Quality Court, Chancery Lane.

London, October 28th, 1871.

SIR,—I beg leave to report to you the results of my analysis of the portion of Jewish glass you furnished me with on the 7th of October instant.

The portion furnished consisted of a large number of small pieces, many of which had undergone a change both in structure and colour by time and exposure.

The portion analysed consisted of those pieces which appeared to me to have undergone the least, if any, change.

In 100 parts.

Silica...	69.30
Alumina ..	3.20
Oxide of Iron ($\text{Fe}_2 \text{O}_3$)...	2.00
Oxide of Antimony	0.29
Oxide of Lead	a trace
Lime	8.50
Magnesia	0.55
Potash	1.49
Soda	13.79
Phosphoric Acid	0.80
Loss in analysis	0.08
	<u>100.00</u>

And, specific gravity 2.430

I am, Sir, your obedient servant,

DUGALD CAMPBELL.

LETTER FROM THE SECRETARY OF THE AMERICAN ASSOCIATION.

UNIVERSITY, NEW YORK, *Nov. 15, 1871.*

DEAR SIR,—I have the honour to inform you that the Rev. Dr. J. P. Thompson having, by reason of ill-health, resigned the chairmanship of the American Palestine Exploration Committee, the Rev. R. D. Hitchcock, D.D., has been elected to fill his place. The fearful devastation of the fire at Chicago has so drawn upon the sympathy and benevolence of all, that our special work is retarded. We shall, however, make the effort to start our expedition this coming winter. I have the honour to remain,

Yours with respect,

HOWARD CROSBY, *Secretary.*

LETTER FROM MR. SAMUEL SHARPE.

SIR,—I beg to call your attention to an error in page 148 "Warren's Letters," *Quarterly Statement* No. V., which arises from relying on the authorised version of the Bible.

Jeremiah xix. 2 should be translated, "The valley of the son of Hinnom, which is by the entrance of the *Pottery Gate*."

This gate, where the potsherds were thrown, has been thought to be the same as the Dung gate of Nehemiah iii. 14. That is doubtful, but at any rate Jeremiah does not place it in the east near the Kedron.

Yours obediently,

32, *Highbury Place*, July 31, 1871.

SAMUEL SHARPE.

CAPTAIN STEWART'S LETTERS.

I.

HOTEL JERUSALEM, JAFFA, 11th Nov., 1871.

I suppose you will wish to hear of our safety so far as we have got on our journey. We reached Alexandria on Friday the 3rd, just in time to be too late for the Austrian Lloyd steamer to Jaffa, so had to rest in Alexandria till the following Monday. The captain of the P. and O. steamer *Ceylon* was good enough to allow all the baggage to remain on board his ship, and the N.C. officers stayed there also. Monday we shifted baggage to the Messageries boat *Nile*, and started same afternoon. The following day touched at Port Said, and remained some hours, leaving again in the afternoon of Tuesday, and sighted Jaffa early next morning, when I at once landed and paid a visit to M. Kayat, brother to the consul, the latter being in England. He kindly gave a permit to land baggage free of customs duty, and together we looked for storage room; the "strus," as the natives call them in the bazaars, turned out such miserable hovels that I declined to have anything to say to them, and proceeded to the German colony which has sprung up here in the outskirts of the town. The landlord and owner of this hotel most kindly offered all assistance, and undertook to store our baggage at a very moderate rate, not one-fourth of what the enterprising Arabs demanded, so I at once closed with him, and had all our baggage conveyed hither, my reasons for selecting Jaffa for storage-place at present, being that it is much nearer Ramleh, where we break ground, and clearly we must be near our base of operations till we are more conversant with the resources of the country, and have ascertained what requisites we should have with us. Besides, it saves the cost of transport to Jerusalem, a considerable item, as we have with us some thirty cases.

Since our arrival we have all been at work from sun-rise to sun-down unpacking cases and repacking for the field, examining instruments, &c., &c. Some of the instruments, I am sorry to say, have been shaken, but I think none beyond our powers to put right. I had intended going to Jerusalem at once to see our consul, but found the men could do nothing without me at first, being quite unaccustomed to such work as is before us; indeed, to all of us it has a novel character. We have, I think, broken the neck of the work, and I hope to start for Jerusalem on Monday.

R. W. STEWART.

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THE
PALESTINE EXPLORATION FUND.

THE SURVEY OF PALESTINE.

THE following letters and reports tell their own tale. Captain Stewart, as we have already announced in the papers, was obliged, after starting the work, to return home invalided. He is still in England, and it is uncertain whether he will be able to return. Meantime, owing to the ability and zeal of Mr. C. F. Tyrwhitt Drake, aided by the two non-commissioned officers, Sergeant Black and Corporal Armstrong, the Survey is proceeding vigorously.

CAPTAIN STEWART'S LETTERS.

II.

JAFFA, *December 15th, 1871.*

MY DEAR SIR,—My last letter to you was written immediately after our arrival in Palestine, and merely reported our safety so far. On Monday the 13th November, I started for Jerusalem to present the letters of introduction with which I had been supplied from England, and also to ascertain whether the firman had arrived from Constantinople. I joined company with three other Englishmen bound for Jerusalem. We slept Monday night at Ramleh, at the Latin Convent, and were hospitably entertained by the monks. The following morning, started before daybreak, and after a long ride reached Jerusalem about 4 p.m. The country appeared very much dried up after the long summer, and the autumn rains had not yet fallen. The next few days were spent presenting my letters of introduction, which invariably procured for me a friendly greeting. However, my permit to carry on the Survey had not arrived, and hoping that it might in a few days, also being desirous of obtaining a general knowledge of the climate and general features of the country, I made a tour to the Dead Sea and Jordan, returning to Jerusalem on the 19th, and finding that the firman had not yet arrived,

I made application to the Pacha, through our consul, for a temporary permit, but the Governor of Jerusalem did not feel himself at liberty to give me the authorisation, prior to the arrival of the firman. At our consul's request, he telegraphed to Damascus to the Governor-General for his authority to do so, but no reply has been received up to date. Such being the state of affairs, I determined to proceed to work at once, and having purchased tents, and engaged a servant to act as interpreter and caterer, returned to Jaffa on Tuesday the 21st, and on Thursday the 23rd started for Ramleh, near to which place our base line was to be measured. Friday and Saturday were devoted to making the necessary reconnaissance before breaking ground, and I was well pleased to find that good positions for observing from could be found on the top of the Tower of the Forty Martyrs at Ramleh and the top of the Greek Convent at Lydda. Our future plan of operation was decided upon, and all seemed prosperous, when, I regret to say, on Saturday evening, the 25th, I was suddenly seized with an attack of congestion of the liver, which at once placed me on the "sick list." Sunday, I left my tent for the Russian Convent, where I remained till Wednesday the 29th, when finding I made no material progress towards recovery, I sent to Jaffa for a palanquin and came to this station, where I have been kindly attended to by a German doctor belonging to the colony which has sprung up here of late years, and I trust I am now quite recovered, although far from strong. In the meantime the survey has progressed satisfactorily under Sergeant Black.

A "base line" of over four miles has been carefully measured—the several measurements agreeing wonderfully well together—and a survey of the country in the vicinity of Ramleh has been made, and suitable points for the triangulation selected. More could not be done without the co-operation of Mr. Drake or myself. The former has telegraphed to me from Damascus that he is on the point of starting, but I regret to say it is now blowing such a gale of wind that no steamer could lie in the roadstead, and if she could, no boat dare face the surf which is breaking on the beach.

This station of Jaffa is believed to owe its existence to a reef of rocks which lies a few hundred yards from the shore, and affords some shelter to such small craft as can lie inside. There is no other natural harbour along this coast from Alexandria to Haiffa at the foot of Mount Carmel. Dr. Thompson says, in his interesting work entitled "The Land and the Book," "it was in fact the only harbour of any notoriety possessed by the Jews throughout the greater part of their national existence." We read in 2 Chron. ii. 10 that it was then the port of Jerusalem, whither Hiram, king of Tyre, sent timber for the building of the temple at Jerusalem: "And we will cut wood out of Lebanon, as much as thou shalt need: and we will bring it to thee in floats by sea to Joppa, and thou shalt carry it up to Jerusalem."

We read of Joppa or Jaffa again as being the port from which Jonah desired to flee from the presence of the Lord unto Tarshish, when

ordered to go to Nineveh, and cry against it; and finally we learn from the Acts of the Apostles that Joppa was the habitation of a certain disciple named Tabitha, which by interpretation is called Dorcas; and hither the Apostle Peter came from Lydda, and restored her to life afterwards. He tarried many days in Joppa with one Simon a tanner. It is a curious fact, and exemplifies the changelessness of Eastern life, that the trade of tanning is extensively carried on at Jaffa to this day.

In modern times Jaffa has obtained an unhappy notoriety in connection with Bonaparte and the massacre of unarmed prisoners. The modern town is believed not to be more than 100 years old; it is picturesquely situated on a headland, the houses rising in terraces from the water's edge; it is entirely surrounded by a wall and ditch, to which the term fortifications is given, but, such as they are, they are falling rapidly to decay. Surrounding Jaffa are the orange gardens for which it is justly extolled, and which are a considerable source of wealth to the owners. The annual value of fruits grown in Jaffa is said to be £10,000. I have been greatly struck at times when riding along this coast to see vines and fig-trees growing apparently in barren sand which abounds here; either there is a supply of water beneath the surface sufficient to nourish the roots, or, what I think is more probable, the sand is not more than a foot or two in depth, and the roots have been laid in good soil beneath. About half a mile from Jaffa is situated the German colony which has sprung into existence in the last few years: this colony, like most others, has a history not uneventful, which I hope to send you at a future date.

MEDITERRANEAN HOTEL, JERUSALEM, *December 29th.*

So far I wrote from Jaffa, on one of the few days I was able to do anything, and now I continue my narrative.

On Sunday the 17th Mr. Drake arrived from Damascus, and as I then felt strong enough to ride to Jerusalem, we both started Monday the 18th, sleeping at Ramleh the same night. Following morning again in the saddle, the day bitter cold, with a keen wind, raw and threatening rain; reached Jerusalem same afternoon, and Dr. Chaplin called on me in the evening, and seemed to think I had not much amiss. Next day he made a careful inspection of my state, and I was again thrown back on the sick list, and have not been out of my room since. To-day I am greatly better, and hope another week will see me out and about. I write this long account of myself to account for the absence of letters. I have been quite unable to write before this. Drake left Jerusalem on Wednesday last for Ramleh, and the triangulation of the country is in progress. My sickness has undoubtedly been a certain cause of delay in the progress, but even had I been quite well, no great progress could have been made owing to the very wet and rough weather we have had almost incessantly. I am glad to say the firman has arrived, and the

Governor has prepared a suitable local order in conformity therewith, enjoining all sheikhs and others in authority to give us all assistance in carrying out the work and to protect our station posts.

R. W. STEWART.

JERUSALEM, 23rd Jan.

Excuse my writing to you in pencil, but I am forbidden to sit up for any length of time. I enclose herewith the meteorological reports up to 31st Dec. They have been most carefully registered and tabulated in strict accordance with Mr. Glaisher's form; indeed I had them copied on to foreign postage paper from his form for convenience of transmission. I wish I had known more of the country when I first was taken ill, as I should certainly have gone to Beyrout instead of stopping at Jaffa, and had good English medical attendance. I wish you would inform the Committee that I am most happy to report that Sergeant Black appears competent to carry out any portion of the Survey unaided, and has shown a most praiseworthy zeal, discretion, and ability in many respects since my illness, so that I am able to leave the work to him with *perfect confidence*. The corporal also is a most happy selection. I congratulate myself on having two such men, conscientious and upright, as far as I can judge, in all respects.

R. W. STEWART.

Jan. 4th

P.S. Dr. Chaplin has ordered me to England, as he finds there is no prospect of recovery here. I go *viâ* Southampton, handing over everything to Drake.

MR. TYRWHITT DRAKE'S REPORTS.

I.

CAMP, BEYROUT NUBA, Feb. 1, 1872.

At the request of Captain Stewart, R.E., now at Beyrout, I beg to forward a report of the Survey from the time I joined it up to the present date.

On December 14 I hurriedly left Damascus, having received a telegram from Captain Stewart stating that he was ill at Jaffa. I reached that place on the 17th, and the next day accompanied him to Jerusalem, where he placed himself in the hands of Dr. Chaplin. On the 30th I joined Sergeant Black and Corporal Armstrong at Ramleh, and on the following Monday (January 1, 1872) we began to extend the work.

Owing to no lack of energy on the part of the non-commissioned officers, of whose zeal and accuracy I cannot speak too highly, but simply to the fact of their being ignorant of Arabic, and the want of

some person to attend to the nomenclature and facilitate dealings with the natives, they had been able up to this point to do little more than measure the base line and sketch in the country in the immediate neighbourhood of Ramleh and Lidd.

The accuracy of this work is most satisfactory, as is the case with all that has been done up to date, and augurs well for future success.

The following is the report of Sergeant Black:—

“RAMLEH, 31st *January*, 1872.

“Up to the 31st December a base line had been measured in the plain south-east of Lydda and Ramleh, but as the trigonometrical observations could not up to that time be commenced a survey was made of the country surrounding Ramleh to the extent of twenty square miles, which was ready to be transferred to its proper place on the plan as soon as a sufficient number of points should be fixed to enable this to be done. During January poles and cairns were erected, and the triangulation extended over about 100 square miles of country, and the detail was filled in on sixty square miles, in addition to the twenty already mentioned, making in all eighty square miles.

“The triangulation included Jaffa, and the astronomical observations taken at Ramleh agreed excellently with those of the Admiralty survey taken at Jaffa, when the two places were connected by means of the trigonometrical distances and a meridian found at one of the principal stations. The points were then ‘scored’ on the plans, and the district of country which had been surveyed was transferred to the plan and drawn.

“The chaining of the base line was checked by angles taken at an intermediate point on it, and from a portion of the base a similar result was produced as from its whole length, when the length of a line was calculated from each. The triangulation was carried away from the base lines in such a manner that very large and well-shaped triangles were very shortly obtained. A diagram showing the general plan of the triangulation up to this time is attached, but a great many prominent points, which are not shown on it, were fixed within the area by observations, and made use of in filling in the detail.

“A connection was made with a bench mark at Jimsu, on the line of levels from the Mediterranean to the Dead Sea, thus giving a means of finding the altitudes of the several trigonometrical stations from the vertical angles.

“THOS. BLACK, Sergeant, R.E.”

From January 1—20 the time was employed in setting up cairns and poles at trigonometrical stations, observing from them, and sketching in the intervening and neighbouring country. In that interval sixty square miles have been filled in, and since laid down on the large sheets. The whole amount thus completed, including the twenty square miles up to December 31, makes a total of eighty square miles.

The work of getting the names correctly is somewhat difficult. In the desert a wady will generally have but one name from its head to its termination or junction with a more important one. In these well-populated districts a wady changes its name half-a-dozen times in as many miles, taking a new one in the territory of each village that it passes through. The fear of the fellahin that we have secret designs of re-conquering the country is a fruitful source of difficulty. This got over, remains the crass stupidity which cannot give a direct answer to a simple question, the exact object of which it does not understand; for why should a Frank wish to know the name of an insignificant wady or hill in their land? The following dialogue will show that denseness is not peculiar to the traditional Chawbacon. I ride up to a man ploughing in a wady, and say, "What do you call this wady?"

"Which wady? Where?"

"Why, the one we are in; here."

"What do you want to know for?"

"To write it on the map," &c.

"Oh, this is called El Wad" (the valley).

"Nothing else?"

"No."

"Well, the men here must be illiterate donkeys!" (turning to the man) "Why, when you go home and say that you have been ploughing in the 'Wad,' perhaps they'll think that you've been on the other side of that hill yonder."

(In a tone of pique) "Oh, no! I should say I've been in W. Serár."

"Then you call this Wady Serár?"

"Yes, that's what we call it."

A little sarcasm is a weapon that seldom, if ever, fails to penetrate the Syrian perceptions, for the native, with all his ignorance and stupidity, is essentially vain, and by this means many a point may be gained or bit of information acquired which no amount of bullying, no length of entreaties, would serve to accomplish.

I have now personally verified every name put down in the map as far as we have gone. The names in Van de Velde are frequently misspelt and sometimes radically wrong, for instance Kefr 'Ana is written K. 'Auna; Nyáneh is put as Náámeh; Saidon for Sáydún, &c., &c.

I will now lay before you notes on certain sites which I believe not to have been hitherto fully identified. I hope to bring several others to your notice shortly, but am desirous of gaining further proofs before submitting them to criticism.

Hadid.—This town is mentioned* in conjunction with Lod (Lidd) and

* Neh. vii. 37: "The children of Lod, Hadid, and Ono, seven hundred twenty, and one." Neh. xi. 34, 35: "Hadid, Zeboim, Neballat, Lod, and Ono, the valley of craftsmen." Ezra ii. 33: "The children of Lod, Hadid, and Ono, seven hundred twenty and five."

Ono (Kefr 'Ana), and in chapter xi. 34, 35, with Lod and Neballat (Bayt Nebala), and in Ezra ii. 33 it is coupled, as in the first quoted passage, with Lod and Ono. Hence we must look for it in the neighbourhood of these places.

In 1 Macc. xii. 38 Adida is a town situated on the Shephelah, or low hills between the mountains and the plain; Eusebius states it to be to the east of Diospolis (Lydda), and this answers well to the position of the modern Hadítheh. This place, with Bayt Nebala, Kefr 'Ana, and Lidd, form a quadrilateral of which the sides measure $1\frac{1}{2}$, 6, $5\frac{1}{4}$, and $3\frac{1}{2}$ miles respectively. No village of importance at present exists within this space. The village of Hadítheh is small, and only occupies a portion of a large circular Tell, the top of which has been artificially levelled, and evidently has been the site of an old and important town. The grey earth, broken pottery, and fragments of squared stones, are enough to prove this, but it is unmistakable when we see the number of quarries, rock-hewn tombs, and stone chambers in the vicinity.

The Tell occupies a most commanding position on a spur of the Shephelah running between Wady Serár and the plain.*

Jehud.—A town of Dan, mentioned in Josh. xix. 45 in conjunction with the following. The Arabic name of the present village, *El Yehudíyeh*, seems undoubtedly to be the old name, but just so much changed as, which is very frequently the case, to bear a meaning in Arabic. It is now a large and flourishing village of 800 to 1000 inhabitants.

The Makam of Nebi Húdah (the patriarch Judah) is here held in great reverence. A Makam is a dedicatory mosque or chapel, usually containing a cenotaph, and erected by some pious person in consequence of a dream or in fulfilment of a vow; it is used as a mosque. I may here observe that at a village called Nebi Danián (Van de Velde calls it simply Daniyal) is the Makam of Nebi Dan—the prophet or patriarch Dan. This I found out by asking the shaykh, who was Nebi Danián? “It is not Nebi Danián,” he replied, “but Nebi Dan, the son of Sidna Yákúb, and the Makam of his brother Húdah is yonder” (pointing to El Yehudíyeh), “and his brothers Shimown and Yamín (Simeon and Benjamin) are near Kalkílieh, and it is only by a vulgar corruption that the village is called N. Danián.” It is curious to find the Hebrew form, “Shimown,” preserved and used instead of the Arabic, Sim‘án.

Bene Berak.—Eusebius locates this place at *Βαρηκά*, near Azotus, but this is improbable, as in Josh. xix. 45, 46 we find “Jehud and Bene-Berak and Gathrimmon and Rakkon with the border before Japho;” this puts it near Yafa, and not near Ashdod. The village of Ibn Ibrak answers to it in every way; even the alliteration has been kept in the Arabic. The fact, too, that Bene-Berak is mentioned between Jehud

* Josh. xix. 45, 46: “And Jehud, and Bene-berak, and Gath-rimmon, and Me-jarkon, and Rakkon, with the border before Japho.”

and Japho, strengthens the supposition, for that is its geographical position.

Gezer.—A border town of Ephraim, from which the Canaanites were not driven out;* it was afterwards given to the Levites.† Destroyed by Pharaoh, it was rebuilt by his son-in-law Solomon.‡ Battles with the Philistines are recorded as having taken place at it, and according to the marginal reading,§ it is made the same as Gob.

I feel inclined to identify *Tell Jezar* with this Gezer. Eusebius mentions a village of Gazara, distant four miles from Nicopolis (Emmaus, now Amwas), and northwards from it, *ἐν βορείοις*. Now Tell Jezar lies W.N.W. of Amwas, and is a little more than four miles distant. This answers to the somewhat loose description, "*ἐν βορείοις*."

The tomb of a shaykh named Mohammad-el-jezari, or more commonly "El jezari," simply, makes a conspicuous landmark on the summit of a long, high Tell, at the southern end of which lies the village of Abu Shushab.

This Tell is somewhat in the shape of a figure 8, being narrowest in the middle. The eastern side is scarped and faced with large roughly-hewn stones in steps, many of which are still *in situ*; to the west it is terraced with three steep banks. The whole of the hill is strewn with broken stones and countless fragments of pottery, some of good red clay, smooth and bright coloured, much resembling Samian ware: amongst these are scattered a few morsels of glass. I observed, too, a few rock-hewn tombs and several oil-presses in the immediate neighbourhood, and a large rock-hewn cistern lined with a rubble wall coated with cement, on the top of the ridge. There is a very large quarry-cave on an adjacent hill; it is called Magharet Hejjyah. The natives have a tradition that the city of the Lord Noah stood on Tell Jezar at the time of the deluge. There can be no doubt that a large and important town formerly stood here. At the base of the ridge, between it and Kubab, is a well, or rather spring, named 'Ain Yardi, which also has traces of ruins near it.

In various places I have observed rock-hewn tombs. At Dayr Tarif I found them of a pattern which I have never seen except in North Syria (in Jebel el Zowi, between Hamah and Aleppo), viz., an oblong opening, originally covered with a slab, sunk in the flat surface of a

* Josh. xvi. 3, 10: "And goeth down westward to the coast of Japhleti, unto the coast of Beth-horon the nether, and to Gezer: and the goings out thereof are at the sea. . . . And they drave not out the Canaanites that dwelt in Gezer."

† Josh. xxi. 21: "For they gave them Shechem . . . and Gezer with her suburbs."

‡ 1 Kings xix. 16, 17: "Pharaoh king of Egypt had gone up and taken Gezer and burned it with fire . . . and Solomon built Gezer."

§ 1 Chron. xx. 4: "It came to pass after this that there arose war at Gezer with the Philistines."

rock, with an arched-over *loculus* on either side, for the reception of the body: the whole depth varies from three to six feet, those at Dayr Tarif being about three and a half feet. Excavated cisterns, sometimes of great size, and usually shaped like beehives or inverted funnels, are of frequent occurrence. The subterraneous storechambers are used to the present day by the natives, and are called, as in Morocco, *metamír* (pl. of *matamora*), but in Syria, *jubb*. The cisterns and graves at Dayr Tarif are called *nawamis* (pl. of *namús*, lit. a mosquito), which is the name given by the Bedawin in Sinai to the primæval cairns, tombs, and dwellings found there.

In many places on the plain there are tanks above ground, solidly built and lined with Roman cement; these have usually a fine circular well beside them, either cut through the rock or lined with well-hewn stones, according to the nature of the ground. Some of these tanks, which are generally about thirty feet square and six or seven deep, are broken up seemingly by the subsidence of the soil beneath them. In more than one instance I have found a whole side fallen *en masse* and lying unbroken on the ground, so hard is the cement. Some of these tanks are used to the present day. The wells being deep, a horse or mule is attached to the end of a rope, which works over a roller, and walking away from the well draws up the leathern bucket attached to the other end. Sufficient water is thus drawn in an hour or two to quench the thirst of the flocks and herds to whom the right of drinking at the well belongs. The shepherds, as they come up, bale out the water by degrees into the small trough from which the cattle drink, and thus much trouble and waste is avoided.

Enclosed* are traces of the ground plan, sketches of the exterior, of the doorway—which is very remarkable—and of the cornices, &c., which I made a short time ago of a building at Mezayra'a, some ten miles north-east of Ramleh. It is built of large, somewhat roughly squared blocks of limestone, the interstices being filled up with small pieces of stone and very hard cement. The staircase, which formerly led to the roof, is now broken away, and with some difficulty I made my way up the wall, lizard fashion. I found the roof, which inside consists of huge slabs supported on arches, in style similar to the Hauran, 'Alah, and Jebel el Zowi architecture, to be covered outside with a thick layer of cement, absolutely as perfect as the day it was laid down. So hard was it that I found it no easy task to break off a fragment. The cement throughout is of the same durability, but that on the roof is mixed with pounded brick. The only ornamentation beyond the cornices is to be found in the acanthus capitals to the pillars in front of the portico; these are much defaced. No inscription was to be found.

The peculiarly well preserved state of the building renders it interesting, but it will prove much more so if my first idea, fortified by the

* These are at the Office of the Fund, 9, Pall Mall East. See also Photo. No. 110.

opinion of Dr. Ginsburg—who, however, only saw my plan and sketches, and from these alone was of course unwilling to give a decided judgment at a moment's notice—prove true, namely, that it is a synagogue.

I hope, as soon as Captain Stewart be well enough to rejoin us, to have some spare time to devote to the natural history and geology, but at present my time is so fully occupied that I can do but little towards making collections.

I have observed one point in the geology worth noting, viz., an out-break of basalt—very friable from exposure—between the villages of Abu Shushah and Sýdún. I am not aware that any basalt has ever been observed to the west of the main range so far southward.

The statistics of population are very difficult to obtain in this country; there is no census, and the people have a dislike to their numbers being known. If a community be small it fears oppression; if rich, extortion. Again, if the numbers of men can be approximated, it is only by guess work that the women and children can be reckoned. It depends much upon the wealth of a place whether a man is able to marry more than one wife; consequently, in a rich village the ratio of women to men will be larger than in a poor place.

The approximate population of Ramleh is

Moslems.....	800 men,	?	houses =	about 2000 souls.
Latin Catholics.....	15	„	6	„ = „ 40 „
Armenians.....	?	„	2	„ = „ 12 „
Greek Orthodox	200	„	50	„ = „ 500 „
(or 300 with boys)				
Monks in the Arme- nian, Latin, and				
Greek convents	varies		= „	30 „
Jews	2			2 „
				—————
				2284 total.

The Moslems have four mosques, more or less used, as well as the old Christian church, which is their principal place of worship. This building has been thoroughly described by M. le Comte de Vogüé. It is oddly oriented, the run of the walls being (true bearing) 111° 20', or 21° 20' south of east. The Christians have each their places of worship in their respective convents.

C. F. TYRWHITT DRAKE.

NOTE.—Van de Velde (see map of Palestine and Memoirs) also identifies Hadid with Hadithéh, Bene-berek with Ibn Ibrak, and Jehud with El Yehudíyeh. The Gezer of Josh. xii. 12 he identifies (Memoir, p. 314) with Yásúr.

II.

P. E. F. CAMP, BAYT NUBA, *Feb.*, 1872.

THE progress of the Survey in February is less than that of the preceding month. Still, however, rather more than fifty square miles have been sketched in, while the trigonometrical stations cover a much greater area. The diminution of actual work done is due to two unavoidable causes. Firstly, the rain, which has been unusually heavy, having fallen on no less than seventeen days in the month; we have nevertheless set up trigonometrical stations at various points westward of a line drawn from a mile north-east of Bayt 'Ur el Foka southwards to Saris, and satisfactory observations have been taken from them. Secondly, the fact that we have now reached the edge of the real mountain district which forms the backbone of the country. The difficulty of traversing these ranges will be understood when I say that a distance of about three and a half miles in a direct line occupied us more than three and a half hours riding. This is owing to the extreme abruptness of the wadies, which sometimes reach a depth of 1,000 feet at no great distance below the watershed. Rough travelling of this kind is not at all beneficial to a delicate instrument like a theodolite; but as it can be by no means avoided, we try to make the best of it.

The *Shephelah*, or hill country lying between the mountains and the plain, presents none of these difficulties, as the valleys are seldom more than 300 feet in depth, and the slopes are much more gradual.

This word "Shephelah" has been wrongly rendered "plain" and "valley" in the A. V. (*e.g.*, Zech. vii. 7 and Josh. xv. 33). Eusebius says that the country about Eleutheropolis was still called Shephelah in his time. It is in fact the district of rolling hills situated as above mentioned, and forms a most marked feature in the physical geography of the country. It is not, however, so far as I am aware, shown on any map otherwise than as a series of spurs or shoulders running down from the main range, which in reality it is not.

It is very important that these natural features should be well understood and carefully borne in mind as most important in helping to clear up the obscurity in which the geography of the Old Testament is now enveloped. These distinctions of mountain, hill, and plain are more than once mentioned in the Talmud (*cf.* tract Shevith, &c.) Rabbi Jochanan says that from Beth-horon to Emmaus is mountain (הר); from Emmaus to Lydda, hill (שלה) and from Lydda to the sea, plain (פלע), which is perfectly correct, as Amwas is situated at the base of a spur from the mountains, and the hills extend to within a very short distance of Lidd, beyond which is the plain.

This will assist us in determining the border of Ephraim near

which we are now camped. In Josh. xvi. 5-10* we are told that it came to Beth-horon the Upper, and then went out towards the sea to Michmethah (which in ch. xvii. 7 we learn to have been in the neighbourhood of Shechem). Thus we see that it did not extend to the sea. This is further confirmed by the statement of Josephus, *Antiq.* v. 1, where he says that the territory of Ephraim "extended to the great plain." From Josh. xvi. 8 it might seem that their land reached to the sea-coast, but from the following verse and xvii. 9 it would rather seem that there were only some separate cities assigned to Ephraim in the land of Manasseh, which lay on the coast. This might explain the expression (xvii. 10), "And they met together in Asher on the north, and Issachar on the east," which would be the case if the border line of Ephraim did not run to the coast, for then the boundaries of the four tribes might meet in one place. The expressions in Joshua are so obscure that the exact boundary must be more or less a conjecture; but this solution seems to me quite possible without straining any point. Our survey will doubtless throw light on the situation of the "brook Kanah," for judging by what I already know, nothing can be more incorrect than the watersheds and valleys as laid down on the best existing maps of Palestine. They seem, indeed, to have been put in at the map engraver's own sweet will, so as not to interfere with the names of the villages, which, as might be expected, are generally more approximately correct.

In Josh. xix. 42, 43, two towns are mentioned, Ajalon and Elon. In the Hebrew they are both spelt אֵילֹן, and differ only in the pointing. In this passage the former is mentioned in conjunction with Shaalabin (שְׁעֵלְבִין, Sept. Σααλιν), and in 1 Kings iv. 9. Elon-beth-Hannan (אֵילֹן בֵּית חֲנָן) is also mentioned as being in the same district. The two names are again in conjunction in Judges i. 35. From these passages we may perhaps conclude that there were two towns called אֵילֹן, as there were two Beth-horons. In this case Yalo† would answer to one, and Bayt 'Anan to the Beth-hanan. Yalo is situated on

* "And the border of the children of Ephraim according to their families was thus : even the border of their inheritance on the east side was Ataroth-addar, unto Beth-horon the upper ; and the border went out toward the sea to Michmethah on the north side ; and the border went about eastward unto Taanath-shiloh, and passed by it on the east to Janohah : and it went down from Janohah to Ataroth, and to Naarath, and came to Jericho, and went out at Jordan. The border went out from Tappuah westward unto the river Kanah ; and the goings out thereof were at the sea. This is the inheritance of the tribe of the children of Ephraim by their families. And the separate cities for the children of Ephraim were among the inheritance of the children of Manasseh, all the cities with their villages. And they drave not out the Canaanites that dwelt in Gezer : but the Canaanites dwell among the Ephraimites unto this day, and serve under tribute."

† See Smith's *Dict. of the Bible*, "Aijalon."

the north side of the same spur on whose western slopes Amwas lies, while Bayt 'Anan is in the mountain six miles distant.

Whether this theory be accepted or not, it is generally admitted that the village of Yalo represents Ajalon. Hieronymus says that the Jews place it at the second milestone from Nicopolis (Amwas) on the road to Ælia (Jerusalem), which answers to Yalo. Eusebius, however, describes it as a village three miles east of Bethel; this, of course, cannot be the Ajalon of Joshua.

Now Shaalabin, as I have already shown, is mentioned in conjunction with Ajalon, and must therefore be looked for in the same neighbourhood. Hieronymus seems to have identified it, for in his commentary on Ezek. xlviii., when mentioning the division of Dan, he has these words, " ubi sunt turres Ailon et Selebi et Emmaus," which I am inclined to translate "Yalo, Selbit, and Amwas." The ruins of Selbit occupy a commanding position on the north of Wady Selman (Wady Soleiman of the maps), and cover a considerable space of ground. They are distant two and a half miles from Yalo.

In the Septuagint (Josh. xv. 60) the verse said to be interpolated contains the names of Κολων and Καρεμ, which have been identified with Kolonia and 'Ain Karem. Θωβης seems to me to answer to Soba. The reading Soris or Sores, which is found in some MSS., may have arisen from confusing it with Σαρις (Josephus, Antiq. vi. 14), which seems to be the same as Saris, a village a short distance north-east of Kesla (which has been identified with Chesalon), a town on the north border of Judah. If this be the case, the boundary line probably went along the wady, which, according to the maps, runs down to 'Ain el Shems (Beth-shemesh). I shall determine this as soon as possible.

Near Bayt 'Anam, on a hill-top, are some heaps of ruins called Jebí'a, "the little Jeba." In Josh. xviii. 24, 25 and xxi. 17, Gibeon (גִּבְעֹן) and Geba (גִּבְעָה) are mentioned as two towns of Benjamin. In 1 Chron. xiv. 16* we find the Philistines smitten by David from Gibeon to Gezer, but in the parallel passage of 2 Sam. v. 25† we find it is from Geba to Gezer. In 1 Sam. xiii. 2, 3 we read that Jonathan had 1,000 men with him in Gibeah of Benjamin, and smote the Philistines in Geba. Josephus too (Antiq. vi. 7 and vii. 10) seems to refer to two places, which he calls Γαβδω, and Eusebius places Geba on the road from Jerusalem to Nicopolis (Amwas) at the seventh milestone. The direct road to Jerusalem from Amwas would be past Jebí'a, and there is still a considerable traffic along it, though the carriage road to the south has rendered it somewhat less frequented.

From these quotations we may conclude that there was a Geba of

* "David therefore did as God commanded him: and they smote the host of the Philistines from Gibeon even to Gazer."

† "And David did so, as the Lord had commanded him; and smote the Philistines from Geba until thou come to Gazer."

the Gibeonites in the territory of Benjamin other than the Gibeah now El Jib. Jebí'a, too, is at no great distance from Kefíreh—which has been identified with Chephirah—another city of the Gibeonites. Hence it seems not unreasonable to conclude that Jebí'a is the Arabic form of Geb'a.

In Benjamin there were several cities of a nearly similar name; for instance נכע (Josh. xxi. 17), נכע'ה (Judg. xix. 13), נכע'ה (Josh. xviii. 28), נכע'ין (Josh. xxi. 17), as well as the town נבת'ין of Dan (Josh. xix. 44).

It may be urged that Bayt 'Anan, lying half a mile to the east of Jebí'a, would preclude it from belonging to Dan, as Elon-beth-Hannan, but we must remember that the boundary of Ephraim was at Upper Beth-horon, and consequently Dan extended up to that point. If this be so, it is possible that Wády Ibrayj, or, as it is called higher up, Wády Miska, was the boundary between Dan and Benjamin.

I have discovered what seems to be undoubtedly a cromlech in the vicinity of sepulchral (?) cairns. This cromlech, the first that I have ever seen in Palestine, consists of a somewhat triangular stone 6ft. 6in. high above ground, 9ft. broad at the base, and from 2ft. to 3ft. in thickness. Its front faces north-north-east, and 12ft. behind it is a smaller stone of somewhat the same form. The cairns lie to the north and east, and to the north is a stone about 3½ft. high seemingly, as is often the case in early stone monuments of phallic import. Two other cairns or barrows that I have found run also north-north-east. Of these I shall write further in a future report.

Since I last wrote I have had a dispute with the fellahin of this place, and have been obliged to teach them a lesson which has had a most salutary effect. The affair might have turned out seriously had I not taken very prompt measures, but as it is I am glad that it occurred. We now stand on a much better footing than formerly, and the natives are beginning to understand that, though we are perfectly willing to treat them well so long as they treat us in the same way, yet directly they annoy us, that they will get the worst of it. The men of this village began quarrelling with the servants the very day that we camped here, but the moment I came to the spot they professed themselves only too ready to do all that I wanted. A few days later, however, they abused and even struck one of our muleteers for serving Christians, which they said was a disgrace to Moslems; the next day they tried to beat Habib, a Lebanon Christian, who has been in my service for some time. On hearing this I sent off a letter to Jerusalem, and on the following day some soldiers arrived. Meanwhile the villagers had come to beg my pardon, but the only comfort they received from me was the assurance that, judged by their own religion, they had proved themselves kafirs (infidels) for having called other men so without reason.

On the arrival of the soldiers I demanded that the shaykh and elders should write and seal a paper expressing contrition for what they had done, and pledging themselves that it should not be repeated. This they refused to do, so the soldiers, acting under orders from Jerusalem,

took four of them off as prisoners, but hardly had they started on their road when the rest of the villagers repented and called them back to receive the required guarantee.

Since then they have been on their best behaviour, and we are now on very good terms, especially as I have cured two or three of them of ophthalmia. This has raised my reputation as a hakim to an unpleasant pitch, and I am constantly besieged by applicants, even from the neighbouring villages, for medicines to cure all kinds of diseases—from blindness to palsy. Now, however, as on former travels, I find that the distribution of a little medicine facilitates dealings with the people, though I fear that it seldom produces anything like real gratitude.

Two of our cairns have been knocked down, but I immediately sent soldiers to make the men in whose land they were built reconstruct them, and I hope that before long these ignorant savages will understand that we have no intention of injuring them, and will not offer us these obstructions, which arise simply from their ignorance and superstition. Kindness from a person whom they know to have the power of compelling them, will be appreciated: kindness from one whose strength they either are ignorant of or doubt is looked upon as cowardice, and as such taken advantage of.

Whenever we have had occasion to visit the villages and set up poles, &c., on the houses, there has been no difficulty whatever, and in my intercourse with the people I have had no trouble—other than that arising from their douseness of comprehension—in obtaining what information I required.

I am glad to say that the cold and wet, though much interfering with our work, has not at all affected the health of any of the party.

CHARLES F. TYRWHITT DRAKE, F.R.G.S.

RECENT DISCOVERIES AT JERUSALEM.

BY CAPTAIN WILSON.

MR. SCHICK, in a letter dated Jerusalem, December 15th, 1871, gives the following interesting details of an aqueduct recently discovered on the hill commonly known as Bezetha. The position of the aqueduct is shown on the accompanying lithograph, and on reference to this it will be seen that it runs from a point near the Damascus Gate to the souterrain at the Convent of the Sisters of Zion, and so connects with the rock-hewn passage explored by Captain Warren, R.E. (see his Letters, No. XIV., and "Recovery of Jerusalem," p. 198). According to Mr. Schick, the aqueduct is from two and a half to three feet wide, and so high that a man can walk through it easily, the height rising, occasionally, to twelve feet and more; it is partly hewn out of the rock, and partly of masonry, the channel being covered by a vault in which numerous openings, now closed by rubbish, were noticed. The aqueduct

crossed the deep pit east of the Damascus Gate, immediately without the city wall, and part of it is visible in the scarped face of the rock on its northern side, near the entrance to the great cavern, or "cotton grotto;" it is therefore older than this pit. In building the present city wall, which stands on old foundations, the upper portion of the aqueduct was destroyed.

Mr. Schick's discovery is of great importance, and it is much to be regretted that he was not able to follow it up, and trace the source from which the aqueduct derived its supply of water; the Palestine Fund has, however, taken the matter in hand, and we may hope during the course of the year to obtain full information. Meanwhile the following suggestions are offered as to the age of the aqueduct and the object for which it was built.

The deep pit east of the Damascus Gate, mentioned above, is hewn out of the solid rock, and now forms part of the ditch which protects the north wall of the city; it is connected with the great caverns or quarries from which it is generally supposed a large proportion of the stone used by Herod in rebuilding the Temple was taken, and is in all probability the original entrance to them. When we remember the terraced limestone formation of Jerusalem, and the gentle even slope at which the strata dip towards the Temple area, a glance at the map shows at once that great facilities existed for running down immense blocks of stone from the mouth of the quarries near the Damascus Gate to their position in the Temple wall. It has indeed been suggested that the mouth of the quarries was at their southern end, near the Austrian Consulate, and if this be the case, the present northern entrance may possibly be of later date than the reign of Herod, but no such opening has yet been discovered. At present, therefore, I think we may assume that the pit east of the Damascus Gate was made during the reign of Herod, and that the aqueduct, which was partly destroyed by the excavation, was of still older date, possibly the work of Hezekiah, who did so much for the improvement of the water supply of Jerusalem.

Following the course of the aqueduct southwards, we find that it runs into the souterrain at the Convent of the Sisters of Zion, and as there is a peculiarity in the formation of this souterrain which does not appear to have been previously noticed, it will be necessary to say a few words with respect to it.

In one of Captain Warren's letters (No. XVI. See also, "Recovery of Jerusalem," p. 224) he points out the probable existence of a ditch in the Haram area, a little north of the platform on which the Dome of the Rock stands. The sides of this ditch, which are indicated on the Ordnance Survey plan of the Haram (marked *cd* on lithograph), are not, as might have been expected, parallel to the northern and southern walls of the enclosure, but perpendicular to a line representing the general direction of the ridge; the reason apparently being that the quantity of rock to be excavated in forming a ditch would be less on

this line than on any other. Turning again to the souterrain, we find that the cuttings in the rock at the north and south ends (F and E on plan) are also perpendicular to the general direction of the hill and parallel to the sides of the ditch in the Haram area. (See woodcut.) This leads me to believe that the souterrain was originally a ditch, possibly that separating the Tower of Antonia from Bezetha, and that in making it the aqueduct was cut through a second time. At a later period it may have been converted into the existing twin pools of the souterrain for the purpose of collecting the rainfall on Bezetha, which would be partly conveyed to it by that portion of the aqueduct left untouched.

South of the souterrain, as we learn from a letter of Dr. Chaplin's (*Quarterly Statement*, No. VII.), the aqueduct runs a few yards beyond the point reached by Captain Warren, and then, turning sharply to the east, terminates abruptly on a massive stone wall similar in character to that at the Wailing Place, and in the same line with it. This seems to show that the aqueduct was again destroyed when the wall was built, apparently from the character of the masonry during the reign of Herod. Whether the aqueduct ran down the crest of the hill, or kept along its side, must at present be a matter of conjecture; there seems every reason to believe that the remaining portion is still in existence, and its discovery by some future explorer will throw considerable light on the topography of the city. The discovery of a wall, similar to that at the Wailing Place, at this point is also of interest, but unfortunately the information relating to it, and its position with reference to the rock, is not as full as we could wish. A plan and section of the souterrain, and the southern portion of the aqueduct as far as the Haram wall, which has been prepared by Mr. Schick, is attached.

We may now endeavour to trace the aqueduct to its source. In my notes to the Ordnance Survey of Jerusalem, written in 1865, the following passage relating to the supply of water to the city, from the north, occurs:—"The pool to the left of the north road, a little beyond the Tombs of the Kings, is now nearly filled with soil washed down by the winter rains; but at the upper end there is still a shallow excavation which holds water after heavy rain, and at the lower end the scarp of rock is visible; this must have been the largest pool in the neighbourhood of the city, and is admirably situated for collecting the surface drainage of the upper branches of the Kedron valley. It was probably connected with the Pool of Bethesda by an aqueduct or subterranean conduit, as this latter pool is so large that it must have been filled by some such means. The difficulty is to find this conduit. The most natural line for it would be to follow the course of the Kedron valley and enter near St. Stephen's Gate, filling at the same time the Birket Sitti Maryam; but against this is the constant tradition of water having been brought in near the centre of the north wall of the city, the reputed springs at the Convent of the Sisters of Zion and Church of the Flagellation, and the Arab name of a street in that quarter,

Hosh Bakîr or Hosh Bezbezi (the running or bubbling of water), such as would be caused by the bursting forth of a spring; none such exists, but the name is suggestive. If there is any truth in these traditions, the water must have been brought down by a tunnel similar to that at Siloam, and cut in the soft stratum of 'malaki,' which would here lie at about the right slope and distance from the surface. Perhaps this may have been the ancient conduit lost or destroyed at some troubled period, and afterwards replaced by a later one following the course of the Kedron valley. In this case the cutting in the rock at the Convent of the Sisters of Zion would be a portion of the former, and the conduit at the Birket Sitti Maryam a portion of the latter. The traditional pool near the Church of St. Anne would of course be connected with such a system of water supply."

I am still inclined to believe that the aqueduct derived its supply of water from the pool north of the Tombs of the Kings, or from some point near it,* and would identify this pool with the "upper pool" of 2 Kings xviii. 17, and of Isaiah vii. 3 and xxxvi. 2, and also with the upper water-course (accurately, source of the waters) of Gihon stopped by Hezekiah when he brought its waters "*straight down to the west side of the city of David.*" The aqueduct would in this case be the conduit of the upper pool in the highway of the fuller's field, by which Rabshakeh stood when he addressed the Jews on the walls of the city.

The frequent identification of Siloam with Lower Gihon, the scene of Solomon's anointment as king, is noticed in the "Dictionary of the Bible," art. Gihon, and the position of the source, mentioned above, from which the aqueduct probably derived its supply, accords well with the slight indications we have of the site of Upper Gihon. Assuming also that the view taken by several writers, that the city of David was on the eastern hill, is correct, the aqueduct is exactly in the position we might expect to find it from the verse quoted above. The verse has always been a difficult one to understand in connection with the topography of Jerusalem, but assuming that the city of David was on the eastern hill, it is at once explained by the recent discovery.†

I do not know of any other source from which the aqueduct could have derived its supply of water, except perhaps the sealed fountain near Solomon's Pools. The high-level aqueduct from this spring has never been traced into the city; the last place at which it is seen is on the so-called Plain of Rephaim, and its level is sufficiently high to deliver water at the Jaffa Gate. The level of the new aqueduct is lower than this,

* In the Wâdy Biyâr, near Solomon's Pools, there is a long tunnel cut in the rock for the purpose of collecting water, and there are others of a similar nature in the country; they are apparently of great age, and the aqueduct recently discovered may have derived its water supply in a similar manner.

† In the article on the Topography of Jerusalem in the "Dictionary of the Bible," this northerly position is given to Gihon, and on one of the maps the great central valley which separates the eastern from the western hill is called the Valley of Gihon.

apparently about twenty feet, and it is difficult to believe that the water would have been brought into the city at a level so much lower than necessary, especially as it might, after supplying the upper town, have been taken straight down to the Temple over the causeway. It may possibly be a branch of the high-level aqueduct, brought round the head of the great central valley to supply Bezetha with water; but this hardly seems likely, as it would then be necessary to make the date of the excavation east of the Damascus Gate and the cutting at the souterrain later than the reign of Herod.

Mr. Schick states, in addition, that he has made a careful plan of the great quarries, or "Cotton Grotto," and of some adjacent ones which have recently been discovered. The latter extend beyond the city to the north, and the present wall, which bends inwards at this point, runs over them. Mr. Schick is of opinion that the original wall ran in a straight line from A to B (see plan), and that the present wall is modern. It may be noticed that if there was an opening to the quarries on this side, near I, for instance, stones could be easily run down the eastern side of the hill for the construction of the east wall.

Mr. Schick also mentions that he has traced out the numerous aqueducts in Wádies Aroob and Biyár, and laid down their positions on a map. He believes that the aqueduct which conveyed water from Wády Aroob to Jerusalem, and which proves to be nearly sixty miles long, was made by Herod, and that the high-level aqueduct from the sealed fountain is the work of Solomon.

Mr. Schick is at present engaged in constructing a model which will show the natural features of the ground before they were covered with rubbish; and as, during his long residence in Jerusalem, he has had peculiar facilities for obtaining information, the model promises to be extremely interesting.

C. W. W.

PALESTINE GEOGRAPHY IN THE SEVENTEENTH CENTURY.*

BY JOHN EGLINGTON BAILEY.

No one at all familiar with the work whose title is at the head of this paper would hesitate to give it a prominent place among the literature of the Holy Land, which it has been projected to collect in connection with the Exploration Fund. Lamb, who knew the work well, would assuredly make it one of the "front teeth" of the collection; but not so much on account of its practical utility—such books, according to Elia's canon, were no books—as on account of its quaintness and *wit*. For, though professedly a mere geographical description of Palestine, the

* "A Pisgah Sight of Palestine, and the Confines thereof; with the History of the Old and New Testament acted thereon. By Thomas Fuller, B.D. London: Printed by M. F. for John Williams, &c. 1650."

writer, "quaint old Fuller," better known from his connection with his "Church History" and "Worthies," has scattered throughout such a profuse display of his peculiar imagery and facetiousness as to render every page of it most delightful to read. In addition to the sacred topography, he enters at length into many of the Bible narratives, and introduces very many other matters which have not the remotest connection with his title-page. Hence the book is calculated to both amuse and instruct; and the saying, "a great book, a great evil," was never more false than in its application to this work. In lack of other matter for the *Quarterly Statement*; a few words about it may not be out of place; the more so as we may derive from it a clear view of the knowledge of the Holy Land which our ancestors possessed about the middle of the seventeenth century.

Fuller's attention was first attracted to this subject by his History of the Crusades, which he published in 1638 under the title of "The Holie War." Palestine being mainly the theatre of that history, he described it in a few brief but characteristic chapters, giving indeed to chapter xviii. the very title of the work we are noticing. He had by that time looked closely into the accessible geographical knowledge of the time, for we find him making the following curious remark on the map prefixed to the "Holie War:"—

"Of thirty maps and descriptions of the Holy Land, I have never met with two in all considerables alike: some sink valleys where others raise mountains; yea, and others where others begin them; and sometimes with a wanton dash of the pen create a stream in land and a creek in sea more than nature ever owned. In these differences we have followed the Scripture as an impartial umpire. The latitudes and longitudes (wherein there be also unreliable discords) I have omitted, being advised that it will not quit cost in a map of so small extent."

Fuller was too much engaged in preaching for the royal cause and in campaigning with the royalist armies to resume what was apparently a dearly cherished work, viz., the amplification of the chapters to which I have referred. So soon, however, as the wandering parson obtained, with the curacy at Waltham Abbey, a fixed habitation, he composed the "Pisgah Sight," laying aside for a time those other literary labours on which his fame rests.

It is a large folio of some 800 pages, and was issued at great expense, which was defrayed in a large measure by Fuller's elaborate system of obtaining "patrons." He perpetuates the names and arms of at least *seventy* of these friends! The *engraving* in the work was a serious item in the expense. Besides a very large map of the country, there are twenty-seven double-paged maps of the tribes, the surrounding nations, the land of Moriah, Jerusalem, &c., sketches of the Temple, the clothes of the Jews, their idols, &c. All the maps bear in parts some resemblance to the old charts of Africa and other *terre incognitæ* which used to circulate among our early navigators. The artists have aimed at depicting the chief *events* of the Bible narratives on the particular spots

where they occurred, and they have gained their point with much ingenuity. Thus, the progress of the Israelites is pictorially traced into the promised land; refugees are shown to be hastening towards the cities of refuge, followed by pursuing avengers; Jonah's "whale," with the ship in the storm, is represented with exaggerated bigness off Joppa; and Moses is seen viewing the land from Pisgah. Fuller terms these quaint drawings "history-properties," and gravely recommends them to one of his child-patrons until such time as he could read! With the same apparent gravity he also requests the reader not to measure his "properties" by the *scale of miles* in his maps, but to carry one in his eye for that purpose!

The *first* book contains a general description of Judea; the *second* is occupied with the tribes; the *third* treats of Jerusalem and the Temple; while the *fourth* comprises the surrounding nations. To this section are added illustrated accounts of the Tabernacle, garments, idols, measures, &c., of the Jews. The *fifth* book is devoted to a miscellaneous assortment of topics.

Fuller's work occupied a foremost place in his day among those works whose aim was to illustrate the Bible. His position in relation to the undertaking he likens (chap. i.) to that of the Israelites at Kadesh Barnea, whose desire to go up to possess the land was "deaded" by the spies' report of the three sons of Anak: when pleasing considerations urged him to compile the book, "three giant-like objections" disheartened him. First, *that the description of the country had been done by many before*; an objection, he says, which might be lawful against the industry of all posterity, but which never disheartened *St. Luke*, forasmuch as many had taken in hand to set forth histories before him; and he adds:—

"Yea, the former endeavours of many in the same matter argue the merit of the work to be great. For sure there is some extraordinary worth in that face which hath so many suitors."

Second: *that the work could not perfectly be done by any*—an objection, he says, which should quicken and not quench industry. Third: *that if exactly done, it would be altogether useless, and might be somewhat superstitious.*

Under the latter head he quietly jeers the heated imaginations of certain of his contemporaries when, in answer to the remark that it was better to let the land sleep quietly, he says: "the rather because the New Jerusalem (Rev. xxi. 10) is now daily expected to come down, and these corporal (nor to say *carnal*) studies of this terrestrial Canaan begin to grow out of fashion with the more knowing sort of Christians." He claimed for his studies that they did much to the true understanding of the Bible. In the verse, "And hath made of one blood all the nations of men" (Acts xvii. 26), he finds three studies in which the industrious antiquary took especial delight:—

"We may see Divinity the Queen waited on by three of her principal ladies of honour, namely, skill in (1) GENEALOGIES, concerning the persons of men and

their pedigrees—‘*of one blood all nations;*’ (2) CHRONOLOGY, in the exact computation ‘*of the times afore appointed;*’ (3) GEOGRAPHY, measuring out the limits of several nations—‘*and the bounds of their habitation.*’”

A few passages which we now come to cite will show the spirit and pleasantry of the work :—

JERUSALEM.—“As Jerusalem was the navel of Judea, so the Fathers make Judea the middest of the world, whereunto they bring (not to say *bow*) those places of Scripture, ‘Thou hast wrought salvation in the midst of the earth.’ Indeed, seeing the whole world is a *round table*, and the Gospel the *food* for men’s souls, it was fitting that this *great dish* should be set in the midst of the *board*, that all the guests round about might equally reach unto it ; and Jerusalem was the *center* whence the *lines of salvation* went out into all lands.”—(iii. 315.)

“THE LONG-LASTING OF THE PYRAMIDS is not the least of admiration belonging unto them. They were born the first, and do live the last of all the seven wonders in the world. Strange, that in three thousand years and upwards, no avaritious prince was found to destroy them, to make profit of their marble and rich materials ; no humourous or spiteful prince offered to overthrow them merely to get a greater name for his peevishness in confounding than their pride in first founding them ; no zealot-reformer (whilst Egypt was Christian) demolished them under the notion of pagan monuments. But, surviving such casualties, strange, that after so long continuance they have not fallen like copy-holds, into the hand of the Seigneur (as lord of the manor) for want of repairing. Yea, at the present they are rather ancient than ruinous ; and, though weather-beaten in their tops, have lively looks under a gray head, likely to abide these many years in the same condition as being too great for any throat to swallow whole, and too hard for any teeth to bite asunder.”—(iv. 85.)

THE MASSACRE OF THE INNOCENTS.—“The souls of these children are charitably conceived by the primitive church all marched to heaven as the *Infantry* of the noble Army of Martyrs.”—(ii. 301.)

“THE ONCE FAMOUS CITY OF CAPERNAUM, Christ’s own city. Note by the way, Christ had three cities which may be called his own (if seven contended for Homer, well may three be allowed to Christ) : Bethlehem, where he was born ; Nazareth, where conceived and bred ; and Capernaum, where he dwelt—more than probably in the house of Simon Peter. This Capernaum was the magazine of Christ’s miracles. Here was healed the servant of that good centurion, who, though a Gentile, out-faithed Israel itself. . . . Here Simon Peter’s wife’s mother was cured of a fever ; and here such as brought the man sick of the palsy, not finding a door on the floor, made one on the roof (Love will creep, but Faith will climb where it cannot go), let him down with cords, his bed bringing him in, which presently he carried out being perfectly cured. Here also Christ restored the daughter of Jairus to life, and in the way as he went (each parenthesis of our Saviour’s motion is full of heavenly matter, and his *obiter* more to the purpose than our *iter*) he cured the woman of her flux of blood with the touch of his garment. But amongst all these and more wonders, the greatest was the ingratitude of the people of Capernaum, justly occasioning our Saviour’s sad prediction, ‘And thou, Capernaum, which are exalted,’ &c. O sad strapado of the soul, to be hoisted up so high, and then cast down suddenly, so low, enough to disjoint all the powers thereof in pieces ! Capernaum at this day is a poor village, scarce consisting of seven fishermen’s cottages.”—(ii. 109.)

“As for their conceit that Anti-Christ should be born in *Chorazin*, I take it to be a mere monkish device to divert men’s eyes from seeking him in the right place where he is to be found.”—(ii. 97.)

The difficulties as to the position of many towns, &c., are settled by Fuller in his rough and ready way. The first syllable of Gadara is to him argument enough to place it in Gad. He finds the distance in miles between two places stated differently in two authors, and he “umpires” such difficulties by *striking the balance*. Dibon, which he finds sometimes resigned to Reuben (Josh. xiii. 27), sometimes to Gad (Numb. xxxii. 24), he treats similarly. “Some,” he says, “make them different and distant cities, which, in my apprehension, is rather to set up two marks than to hit the right one. For seeing these two tribes confine together [are contiguous], and both lay claim to Dibon (like the two mothers challenging the living child), we have only, instead of a sword, made use of pricks, setting it *equally in the bounds of both*.” The distance between Cyprus and the continent “*could not be great*, if it be true what Pliny reports, that whole herds of deer used to swim over thither.” The work concludes with a very elaborate index of names, with English equivalents, similar in some respects to that given in Stanley’s “Palestine;” in it, “to fix the Hebrew names better in our memory, we have here and there (as the propriety of our language and commodities of our country will admit) inserted some English towns as *synonymas*, and parallel to the Hebrew in signification.”

Designed to make the readers of his day more familiar with the geography of the Holy Land, Fuller’s *Pisgah* must often have been ranged with the Bible in the English homes of that time. Without competent skill in sacred geography, he says that ignorant persons, like the blind Syrians, who, intending to go to Dothan, went to Samaria, “must needs make many absurd and dangerous mistakes.” “Nor can knowledge herein,” he adds, “be more speedily and truly attained than by a particular description of the tribes, where the eye will learn more in an hour from a map than the ear can learn in a day from discourse.” He complained that while his countrymen were generally quick-sighted in other kingdoms and countries, they “were altogether blind as touching Judea and the land of Palestine—the home of their meditations who are conversant in all the historical passages of Scripture.” Spite of its great age the book even yet remains eminently useful in this particular, albeit that so much fresh light has been thrown on sacred topography by more recent travellers and scholars. The writer of this article has often consulted it with more advantage than he has derived from better-known works. We may see a proof of the popularity and usefulness of the work in the fact that a second edition appeared in 1652, and a third in 1659.

To its success Fuller himself alluded, with a pardonable pride, when (in answer to his opponent, Dr. Heylyn, who also had written a description of Palestine in his “*Microcosmography*,” and who perhaps regarded Fuller as a poacher on his estate) he said that his book (by God’s good-

ness) had "met with a favourable reception," and that it was "likely to live when I am dead; so that friends of quality solicit me to teach it the Latin language." A fourth edition appeared in 1662; but no further publication of it occurred until a year or two since, when Mr. Tegg issued a small-sized reprint, with clever fac-similes of the maps, reduced in size.

In all respects the "Pisgah Sight" was worthy of Fuller's sacred calling. An ardent antiquary himself, Fuller carried his favourite pursuit into his profession. To him, as to his contemporary, Browne of Norwich, "The Ancient of Days" was the antiquary's truest object. The "Pisgah" reverently sprang from his affection for the Bible; for (to use his own expression) next to God the Word, he loved the word of God. Hence the Bible is the chief authority for his work. We find him saying (book v. 170), "Let God be true and every man a liar. I profess myself a *pure leveller*, desiring that all human conceits (though built on most specious bottoms) may be laid flat and prostrated if opposing the *written word*." None of his books so markedly shows how well acquainted the writer was with his Bible. Probably every topographical verse is inserted, and a very great many others. He was an "exact text-man," and was especially happy in making Scripture expound itself. "Diamonds," he would say, "only cut diamonds." Josephus, of course, ranks as his next authority. Fuller thought that, notwithstanding the faults of that author, "the main bulk of his book deserved commendation, if not admiration; no doubt at the first compiled and since preserved by the special providence of God to reflect much light on the Scriptures." He is at pains to free Josephus from the strictures of Baronius, on the ground that the former may have fallen into involuntary errors. It is in this defence of Josephus that Fuller forestalled, if he did not inspire, a well-known passage* in one of Wordsworth's ecclesiastical sonnets:

"Historians who have no faults are only fit to write the actions of those princes and peoples who have no miscarriages; and only an angel's pen, taken from his own wing, is proper to describe the story of the Church triumphant."—(ii. 148.)

In illustration of his work, Fuller made besides an occasional use of the Rabbins; but this field of illustration he left to his friend, Dr. John Lightfoot, who, by a curious coincidence, had planned a similar work to that of Fuller. The references of these two scholars to each other in their respective books are most cordial, notwithstanding that each in a manner baulked the designs of the other.

Fuller also brought under contribution many of the old writers on Palestine; we find him quoting, among others, Pliny, Jerome, Ptole-

* "There are no colours in the fairest sky
So fair as these. The feather whence the pen
Was shaped that traced the lives of these good men
Dropped from an angel's wing."

meus, Villepandas, Arias Montanus, Adricomius, Bocartus, &c. Of *travellers* he consulted Brocardus, Breidenbachius (whose description, he says, was "neither divided into leaves, pages, columns, nor chapters," book ii. 149), Morison, Biddulph ("a late English divine," book ii. 140), Munster, Bunting, &c. Sandys, the famous eastern traveller, personally known to Fuller (who says of him that he "spared other men's pains in going to the Holy Land by bringing the Holy Land home to them, so lively is his description thereof" *), is very often mentioned.

In addition to his familiarity with the literature of the subject, Fuller evinces a considerable critical skill in his discussion of topics connected with geography, history, and divinity; the learning, indeed, which he displays throughout is both deep and solid. We see as we read that the author was one of those "*gulfs* of learning" who were not singular in that age.

J. E. B.

EXPEDITION TO THE EAST OF JORDAN.

BY THE REV. A. E. NORTHEY.

ON Tuesday, the 18th of April, 1871, about one o'clock in the afternoon, we started—a party of five—on our trip across the Jordan, intending to encamp the first night at Ain Sultân.

We were at last about to accomplish our long-cherished plan of visiting the country east of the Jordan, the chief points of interest being Mount Nebo, Heshbon, Ammân, and Gerash, with the intervening country. After a long lingering look at the view of Jerusalem from the Mount of Olives, and a grope into the so-called tomb of Lazarus at Bethany, we mounted our horses and commenced the rapid and rocky descent from Jerusalem to Jericho, so well known to all Eastern pilgrims. This remarkable region, with its intersection by enormous ravines like the Wady Kelt, its curious geological features, and by no means scanty botanical treasures, is well worthy of a careful and scientific exploration, even independent of its Biblical interest. Immediately after passing the khan, about which wandered ghoul-like the forms of three Turkish soldiers, who are posted here during the season of the Jordan pilgrims, our Adwan guide led us, by a track on the left-hand side, to the summit of a peak, from which we gained a varied and extensive view over the country in every direction. Following this track, instead of returning to the main road, we skirted some of the heights which overhang Wady Kelt. The views are well worth a scramble, far surpassing those which we had seen on a former occasion from the main route. An additional elevation of a couple of hundred feet often discloses, as every traveller knows, an entirely new series of views. This was the case now; we could see well into our promised

* "Worthies of England," § Yorkshire.

land, the East of Jordan; Nimrîn, Wady Hesbân, Keferein, and other places which we proposed to include in our route, were pointed out to us; and the Ghor, with its graduated tints of dark and light green, yellow and white, stretched its long, narrow valley far up towards the north. Lovely peeps of the Dead Sea, and of the pink and purple mountains beyond, opened out now and then on our right, while on our left the enormous ravine of the Wady Kelt forbade too near approach as we endeavoured to peer down into its depths.

All round us lay the billowy masses of the rocky wilderness, heaped about in endless confusion. Egyptian vultures and buzzards were soaring far overhead, as we leisurely descended, feasting our eyes upon the gorgeous sunset tints of purple, pink, and rose, into the Jordan valley. In the evening glow the white mounds, or mamelons, of cretaceous deposit in the centre of the Ghor might, with no great effort of imagination, be spirited into the fairy vision of a city fringing the river banks. Just before dark we reached our tents, pitched on the farther side of Ain Sultân, the usual camping-place being occupied by a huge caravanserai of eighty-four middies of H.M.S. "Trafalgar," accompanied by some of their officers and the Bishop of Gibraltar. In front of our tents was a dense mass of wood, chiefly nebk, destined to be often a thorn in our flesh. Far away in the distance, as we turned to look southward, rose the heights of Nebo on the left and of Nebi Musa on the right, with a partial glimpse of the Dead Sea between them. Behind us stood Mons Quarantania and its neighbours.

We had of course before leaving Jerusalem concluded our contract with the Adwans; Sheikh Goblan being at some distant place out of reach, the bargain with us had been made by his brother, Sheikh Fallah. Owing to some vigorous measures of the Turkish government, and the increased number of travellers, the demands of these Arabs have lately been much reduced. The fee paid is not levied as blackmail, but is simply a sort of "police and guide rate." We found it by no means excessive; it would contrast very favourably with the demands of Swiss or Pyrenees guides along paths where no one with two eyes in his head can possibly miss his way. We agreed to pay £10 for escort and guides, leaving to them to fix the number of men who should accompany us: this was usually about a dozen. We were to visit all the places of interest which we mentioned, and any others which they liked to show us, and were to encamp where and as we pleased, merely giving them a general idea of our contemplated route, and of the time for which we should require their services, which we estimated at ten or twelve days. They were to be responsible for all losses, and to secure us from any trouble or danger. We had every reason to be satisfied with their performance of the contract; they were perfectly faithful and honourable; indeed, we liked them exceedingly, and were only sorry that our limited stock of Arabic prevented conversation with them. Sheikh Fallah and a fine young fellow, Abdul Asiz's son, were excellent guides, most willing to show us all they could and to tell us all the

names of the wadies, jebels, and beit gadeem (ruins), about which we plagued them considerably. They often went out of their way to show us a view or a ruin, were courteous and intelligent, and never gave us a moment's trouble. Goblan turned up at Ain Sultân, and grumbled slightly at the too favourable terms, as he thought, of the contract made on his behalf; however, he was soon appeased by the promise of "a little something extra." This included, our trip cost us £15 extra, £3 a piece, which cannot be called extravagant for ten days. It was well worth it.

The next morning, after a delicious bathe in Elisha's fountain and a good breakfast, we set to work to explore the ruins and thickets situated at the foot of Mons Quarantania. The ruins consist of fragments of water-conduits, mills, and houses, of no great antiquity; here and there were patches of cultivated land, fenced in by a hedge of dead cut thorn-branches, a most effective obstacle to the entrance of a trespassing Howadj. Farther north, close under the hills, the glen or oasis of Ain-el-Dûk is very fertile, though thorny trees and bushes abound. Birds were plentiful, including large flocks of the lovely rollers, quails, partridges, buzzards, hopping-thrushes, and others. After a while, we assembled our scattered forces, and descended leisurely to the River Jordan, which we reached in about two hours. The whole of this portion of the Ghor is stony, like the dry bed of a torrent, full of boulders and pebbles, one gigantic wady. The heat was great, but the air not sultry. On arriving at the bank of the river, near En Nwaimah Ford, we found to our surprise a large and well-built ferry-boat, which transported us, our animals, and our effects, over to the other side in a very few minutes. A most picturesque scene it was; different indeed from that which we had last witnessed at the Jordan, when its banks and its waters were crowded with Easter pilgrims. Now all was peaceful, still, and tropical; canes, willows, and tamarisks clothed the river with dense masses of green; birds sung and fluttered gaily about, and the splash of the wet rope in the rapid current caught refreshingly our ears as we lay gasping in the noon-day heat. And now we touched the eastern bank; our feet trod the land on the East of Jordan; we felt now that we were really starting; and we indulged in a traveller's pardonable exultation at the prospect of leaving the beaten track, and seeing with our own eyes that fair land of Gilead, which had been possessed by Moab and Ammon, Sihon and Og, Reuben and Gad, but of which all the splendour, in monuments made by man, dates from its history as a province of Imperial Rome. We looked forward with keen delight to our contemplated trip, which, indeed, did not disappoint us. It is of the highest interest, and being now easy of accomplishment, should on no account be omitted by any who wish to gain a complete acquaintance with the inheritance of the Twelve Tribes—the entire land of promise.

At 1.30 we left the eastern bank of the river, and riding leisurely, reached Nimrin in two hours and a half. The bottom or bed of the Ghor

here is of the same character as on the other side. On approaching Nimrin, we noticed some fields of wheat, of considerable extent, well cultivated and weeded; and gathered some of the little round fruit of the Dôm-trees, which was just ripe; it is somewhat like a medlar, pulpy, and slightly sweet. Camping here, we had time and light to go out and explore the place. Of ruins there is not much. Some old mills and conduits, and one building, prettily situated on an eminence, which at a distance might pass muster as a dilapidated church, was all that we could find. Nature was more inviting. At Nimrin we had our first experience of the fine gushing streams that are so delicious and fertilising on the east of Jordan. A bathe in the deep pools of this one, under a bower of huge canes and flowering oleanders, is a very elysium in Syria. The vegetation is tropical; there were many young plants of the Osher, or Sodom apple, with its fine handsome foliage, and castor-oil plants growing to the size of a large apple-tree. The Dôm-trees have exactly the growth and appearance of our black-thorn, and the leaves are like large sloe-leaves. From Nimrin we looked back, with some degree of triumph, at the western side of Jordan, the hills of Judæa, the gorgè or huge crack, as it now appeared to us, of Wady Kelt, the green oases of Er-Riha, Ain Sultân, Ain Dûk on the other side, and of Keferein and Wady Seisaban on this side Jordan. Here we shot several birds, two species of shrike, and others. Thermometer inside the tent at night 77° Fahrenheit.

Thursday, April 20th.—We had intended following Dr. Tristram's route as nearly as possible, but Fallah wished to show us some ruins in another direction, which he said were better than anything to be seen at Keferein. We therefore struck nearly due east, instead of turning south to Keferein, and in half an hour left the Ghor, and entered into a rocky gorge or glen. About a mile up this we passed a ruined bridge; the smooth slopes of the hills on either side (unterraced, as Dr. Tristram remarks) were covered with flowers, among which we recognised several old garden acquaintances, borage, camomile, sage, mustard, hollyhocks, and others. The only trees were nebk and hawthorns. Partridges abounded. The strata, all of limestone, dipped N.W. at an angle of 10° to 15°, but in many places they were much contorted. As we mounted, the views were beautiful over the Jordan valley, the Dead Sea, and the Judæan hills, which looked considerably lower than the Moab hills do from the west. The roads from Er-Riha to Marsaba and Jerusalem were distinctly visible.

After two hours' ride we came to a ruin called Sûr, one of the claimants to the site of the ancient Jazer. There is, however, but little here, and it seems to me that Khirbet Sûr, in the valley below, is more probably the true site. The position of Sûr, on a lofty spur or ridge overlooking Wady Sûr, is fine, but the ground is so uneven, that there is not room for a town of any size. The ruins consist merely of a rough wall in the shape of an irregular triangle, the longest side 350 yards in length, with semicircular buttresses or turrets projecting every 50 yards. The

wall is about 6ft. thick. There is a well at the N.E. corner, but no hewn stones anywhere, and nothing to reveal the age of the building.

From Sûr a ride of an hour and a half over high ridges, with fine views over Wady Sidr (Sûr ?), Wady Keferein, and the country round, brought us to Arak-el-Emir, when, passing the ruins of Hyrcanus' palace, we descended at once to the Wady Seir, where we found a charming place for lunch under magnificent oleanders by the side of a rushing stream. The oleanders here grow with immense vigour, attaining a height of 40 or 50 ft.; there are also some very fine plane-trees. The stream was full of shells. After lunch we first explored the caves in the rock cliffs to the north of the palace or castle. Great chambers have been hollowed out, perhaps originally natural cavities, but greatly enlarged and shaped by artificial means. One which we measured was 45ft. by 33ft., and about 20ft. high; another 54ft. by 36ft., and 28ft. high. To each of these chambers there were two openings; one a kind of square window, 12ft. high by 6ft. wide; the other a rough square doorway below. At the side of the entrances was an inscription or name in ancient Samaritan, the same in both cases.

Beyond these was another chamber, longer, narrower, and lower, which had been used as a stable. It is 96ft. in length; round the sides is a range of stone mangers cut out of the solid rock, about 3ft. high. Close by is a round cistern, 12ft. in diameter, as well as many other caves and passages, the entrance to some of which was purposely made by Hyrcanus as difficult as possible. Two large squared stones, standing up edgeways, with a chequer pattern on them, puzzled us, as they have puzzled every one who has seen them. Due east of these cavernous chambers, at the distance of half a mile, are some remains; smoothed rocks, steps cut in the rock, and a niche in the shape of a square panelled recess, about 1ft. in depth. A little south of this lay the entrance gateway, built of large stones squared and finished with the Jewish bevel. The aperture of the gate was 12ft. wide; one stone measured 11ft. in length by 5ft. in width. From this gateway to the castle was a raised causeway, with some perforated stones placed on it at intervals. Of the castle itself, all that remains standing is part of the front or façade, built of stones of enormous size, with a frieze of about 12ft. in height, on which are huge lions sculptured in bold alto-relievo. All about lie great fragments of the building, pieces of columns, friezes, with triglyphs and metopes, cornices, and some very fine and elaborate mouldings, all of the Doric style. Some of the stones measure 20ft. by 8ft., beautifully finished with the Jewish bevel.

The castle stands on a raised platform, in the middle of a walled enclosure of ten or twelve acres, of which the traces can still be seen. The position and scenery around are beautiful, and Hyrcanus was a wise man to choose so charming a spot for his enforced retirement. The glen to the N.E. above Wady Seir, the cliffs, the sides of the hills covered with oaks and terebinths, with the undulating verdant slopes below, make a lovely landscape, not unlike some parts of Wales.

We started from Arak-el-Emir at 4.30, keeping nearly due south, descended by the right side of Wady Seir, crossed Wady Keferein, and mounting the hill to the south of it, reached our camp in two hours. Our tents were pitched high up on the side of the hill, below and north-east of Jebel Jabud, facing Wady Seir, in a romantic and picturesque spot.

Friday, April 21st.—Having been invited by Sheikh Goblan to dinner, and having learnt that it was against all etiquette to present ourselves before midday, we did not move from our encampment till ten o'clock. We then ascended Jebel Jabud, 2,700 ft. high,* from which we had a magnificent view in every direction. Keeping along very high ground, we arrived just at noon at Goblan's village, to which he welcomed us with dignified courtesy. He took us into a large long tent, with a partition at one end screening off the women, children, and puppies. Seating ourselves as well as we could after their cross-legged fashion on rugs and carpets, we were presented with coffee and a sweet aromatic mixture. After an interval, two attendants brought in an immense iron cauldron or dish, in which was piled a mass of stewed mutton and rice. We set to work with our fingers, and finding the mess palatable enough, and not so greasy as we anticipated, did our duty manfully. We could not emulate Goblan's dexterity in making balls of oily rice with the three fingers of the right hand, which was evidently a sign of Adwan *haut ton*, but we found that knives and forks were after all but useless encumbrances of advanced civilisation. Goblan supplied not only mutton and rice but also soap and water, and as we washed our fingers, the mountain of food vanished before the attack of hungry Arabs. A sheep is evidently not killed every day. After our repast Goblan showed us a picture of the Crown Prince of Prussia, with which he had been presented, and asked intelligent questions about the war and various other matters.

All this time, ceremoniously wasted, we were longing to scale Mount Nebo; so, as soon as manners would permit, we rose, thanked our host for his hospitality, and proceeded. Passing for an hour through pretty rocky wadies, we came suddenly upon our tents, already pitched (2 p.m.) in the Wady Hesbân. We had, however, still almost our whole day's work before us. Descending Wady Hesbân south-west for half an hour, we passed Ain Suderah, and then turning to our left south-east, entered Wady Suderah, and through this and other wadies mounted steadily for three hours till we reached Jebel Nebba.

We were now certainly upon the height called by the Adwan Jebel Nebba, and pointed out to travellers as such. Wady Ayun Musa lies to the north, Wady el Gedid to the south. But the view was to us a

* For all altitudes referred to I am indebted to Captain Warren's table, given pp. 307-310; as also for some of the orthography. I much regret that I had not with me in our journey his most accurate and valuable itinerary. To all these altitudes may be added (roughly) 1,000 feet, to give the height above the Ghor, the nearest low level.

little disappointing. It was much the same as that from Jebel Jabud; there was higher ground to the south which entirely intercepted our view, and even prevented our seeing the whole of the Dead Sea. We had not time, or we should certainly have gone for about another hour southward, when, I fancy, the highest point of the range would be gained. Whether the view from thence over the country west of Jordan and Jericho would be equally commanding, of course I cannot say; but it would be worth trying. Fallah, at all events, had taken us to what they call Jebel Nebba; there were several eminences more easy to reach, which would have satisfied our ignorance equally well; but they pushed on to this point, so that we may be confident that our guides regard it as such. The view, at least, must be very nearly the same as that seen by the great Prophet—a glorious one, after all, it is. The exact spot visited by us may be identified by one special characteristic. The field, or hog's back, through which we passed on turning westward from the road in order to reach the summit, is full of deep holes—traps for falls to unwary travellers' horses. Cantering enthusiasts will probably examine a little too closely, as did two of our party, the rock of which Mount Nebo is composed. Arab agriculture will not quickly alter this characteristic.

It was nearly five o'clock before we started on our way back to our camp. We did not retrace our steps, but kept on the high ridge which lies between the plateau El Belka and the hills which slope down to the Ghor and the Dead Sea. This El Belka consists of immense rolling plains of corn, like those near Gaza, beyond which rises a wall of hills forming the boundary of the great Arabian plateau. We reached Hesbân at six, when it was getting dusk, and had not time to explore the ruins, which, though scattered and fragmentary, are of great interest. They are of all periods, but chiefly Roman; and consist of arches, broken columns, entablatures, wells, cisterns, &c. One space, about forty yards by twenty, contains a pavement in good preservation, with the bases of four large Doric columns at one end, and other broken columns. It was not apparently a temple; perhaps a small forum or market-place. The position of Hesbân is high, commanding a fine view.

Continuing our ride by El Al (Elealeh), night overtook us; the stars and a thin crescent moon shone brightly as we stumbled down a small wady leading into Wady Hesbân, by a frightfully rocky path to thread in the dark. We arrived, however, safely at eight p.m. The strata in this district, which is more rocky than farther north, are exactly of the same character as those of the hills about Bethlehem and the Mount of Olives—limestone with layers of flint; there are no traces of igneous action. The flowers and plants were also, as far as we could judge, identical with those on the west of Jordan.

Waking the next day, Saturday, the 22nd, to find ourselves close to a delicious spring bubbling like crystal out of the rock, Ain Hesbân, we had a most refreshing bathe, and after breakfast bade adieu

to Goblan, who did not wish to accompany us farther. He paid us many compliments, wished us a happy journey, and took with quiet dignity the liberal baksheesh which we put into his hand, delicately wrapped up in a piece of paper. He went back to his village, taking with him his son, a nice bright boy of ten.

We then went up Wady Hesbân in a north-easterly direction, which we followed all day. The wady just above Ain Hesbân is very pretty, being in fact a rocky glen; large masses of rock detached from the cliffs, on either side lay strewn about, embedded in a tangled and luxuriant growth of shrubs and flowers, with here and there a fine old terebinth. Passed a hermit's cave, with an arch built over an entrance to it.

In an hour's time we came to a small ruin on the top of a circular tell called Um-al-Khanafish, and then emerged upon a high plateau of downs, like a Scotch moor and Sussex down combined. A knoll on the left was crowned by a cluster of pines, and the downs were covered with a fragrant thorny bush and many flowers. At eleven we reached Jebel Naûr, from which we had a fine view, embracing Jebel Osha (Mount Gilead), Sûr, and the hills about Hesbân; also a good deal of the country beyond Jordan. The hills on the west of Jordan present from this point a straight outline as far as Nablus, and then appear broken and irregular. Thermometer, 68° in shade, 91° in sun. Slight breeze from N.W. Wady Maûr, according to our informants, undoubtedly flows into Wady el Bahar, not into Wady Hesbân. Descending from this height, and threading these high undulating downs, we passed several Arab encampments, at one of which we were presented with some butter-milk in a not very lordly dish, and in an hour arrived at a ruin called Mousymak (Um as Samâk).

These ruins are of considerable extent and importance, of the Roman period. Buildings, of which the walls are still to some extent standing, extend in one direction more than 400 yards. A great many columns, capitals, pieces of frieze, bases, and other fragments, strew the ground. We found one column slightly fluted, one immense stone with the Jewish bevel, several Corinthian capitals and one Ionic; another stone also, with some Maltese crosses cut upon it. In the centre of the town is a platform, either for forum or temple, several wells, gateways, and well-built walls. We could not stop long enough to explore it properly, and I recommend it to the notice of future travellers. From Um as Samâk an hour's ride brought us to the summit of Jebel Tahin, a rather low but conspicuous eminence in the middle of an elevated and undulating plateau; there was a fine view to the east towards the Hauran, but not much else. Tracking still to N.E., we reached Ammân in an hour and a half, entering Wady Ammân near a bridge over the stream, just south of the city.

One gaunt column on the left immediately caught our eye, then as we defiled into the valley, others revealed themselves; next, a pretty little temple; until as we wound up it, we found ourselves walking through a veritable city of the past. A wonderful ruin is Ammân. The

buildings stand, many of them fairly perfect, silent witnesses to a once teeming population. Temples, churches, theatres, public and private buildings, crowd one another, but all are desolate, and there are no inhabitants of the "city of waters" save storks and owls. Soon we caught sight of our tents, pitched at the farther end of the city, close to a row of eight columns, under the shadow, almost in the proscenium, of the Great Theatre, and backed by the clear stream. Here was, indeed, something to be seen! The Adwan had not been using hyperbole when they said that the Hawadjat would find Ammân "good and beautiful." We congratulated ourselves that we had arranged to spend here the whole of the next day, Sunday. We had still two hours' daylight, so we at once set to work to look about us; and during our stay we did what we could to gain a general idea of the place, which, I am glad to think, will at the hands of the American Expedition soon receive a careful and systematic exploration. The accompanying plan, inserted by the kind permission of Captain Warren, will facilitate explanation.

The city of Ammân, Rabbath Ammon or the "city of the waters," which Joab besieged, and where Uriah was killed, and later the Roman Philadelphia, lay, as will be seen in the afterwards-plan, in two narrow valleys, through which flow two small streams, one through Wady Hadâdeh from the north-west, and the other through Wady Ammân from the south-east. These unite near the building c D, and continue their course north-east through Wady Ammân. When we were there, the stream in Wady Hadâdeh was dry, but Moïet Ammân, as it is called, had a good supply of water, and there were pools large and deep enough for a swim. Crowning the height on the north-west, the shoulder between the two valleys, rose the citadel, holding a commanding position over these valleys and the country round. The valley is most contracted between the foot of the citadel and the great theatre, the valley widening as it extends south, though the rocky heights advance on the eastern side close up to the stream near point c, and then again recede. The chief buildings of interest have been well and accurately described by Dr. Tristram, and some measurements have been taken by Captain Warren (p. 295). I will therefore only give a few of the results of our too hasty investigation.

The main stream, Moïet Ammân, was paved and faced with stone quays, and there seem to have been two or three terraces, portions of which were probably colonnaded, rising one above another, and parallel with the stream. From the ruined bridge (c) as far as the still perfect bridge (C), a distance of 150 yards, can be traced spring stones for arches, suggesting that the stream was covered over for this distance.

The most interesting remains are the two theatres, the walls of the citadel at the north and west corners, the Byzantine church and great temple within the citadel, the two churches in the valley, and two temples. Amidst the mass of *débris* of masonry, often covered with rank vegetation, rise numerous columns or fragments of columns, and the walls of various buildings are still easily traceable.

Approaching the city, as we did, from the south, 500 yards above the bridge which once spanned the stream, we first come to a beautiful little Corinthian temple. It is 18ft. square inside, and was roofed with a dome. On the east side was a large window, which, as well as the whole of the exterior on that side, was richly decorated. Nearly half the original building, which must have been a perfect little gem, remains standing. 230 paces north of this temple is a rectangular enclosure 40 paces by 80, the walls of which were of massive masonry, the stones being dovetailed in a curious way. Beyond this lies the ruin of what is called the cathedral of Ammân (κ). Captain Warren suggests that it may have been a mosque. It does not lie east and west. It is a large rectangular building, measuring 181ft. by 120ft., 35ft. at the end being cut off by a wall, perhaps as a sanctuary. There were three entrance gateways, and a tower at the corner with a circular stone staircase of 33 steps, from the summit of which we gained an extensive view of the city and valley of Ammân. To the east and north of this is a great chaos of ruined walls and houses, gateways, vestibules, at the river-end of which is another church (cathedral?) which remains in such preservation as to be distinctly traceable. It must have been very pretty when perfect, and excellent in its proportions. It consisted of a nave and two aisles, the nave 40ft., and the aisles each 20ft. in width, making a total of 80ft. At the east end of the aisles were square chapels, forming with the nave a kind of transept, and in the centre beyond a small apse; total length, 150ft. Fragments of columns of various coloured marbles point to a considerable richness of internal decoration.

North of this again is a small building with some pointed arches; and immediately beyond this, the building marked D, of which it is impossible now to define the shape or size. A great mass of masonry still remains, with niches, arches, and windows in it, and the face towards the stream consists of two massive round bastions. Two columns only still stand *in situ*. North of this is a bridge near point C still spanning the stream; and following the stream some distance we come to what was probably the forum—a rectangular space of 140 paces by 70, surrounded by a colonnade, and flanked by the great Theatre and Odeum. Eight columns, with their architrave, still stand upright, and a few others are to be seen about. Here is the most striking group of ruins; nothing can exceed the grandeur of the large theatre, crowned by the rocks out of which its semicircle has been hewn. Resting thus against the rock, with its forty-three tiers of seats still visible, its passages, corridors, galleries, and vestibules, it must have been a splendid building, capable of holding six or eight thousand persons. The small Theatre or Odeum, immediately adjoining, which could be almost perfectly restored if its fallen pieces were put together again, must have been a beautiful little gem in the Corinthian style, on which was lavished all the ornamentation of the Roman period.

Crossing the stream, our eye is attracted by a picturesque ruined

temple (B) of rich Corinthian style, one side of the altar end or adytum being still fairly perfect. And now, to scale the citadel hill, a formidable climb has to be encountered, though the view and the remains at the top well repay the trouble. A small ruin on the brow may have acted as a watch-tower or guard-house, and a few yards behind this are the ruins of a colossal temple (M), very probably dedicated to the Sun, like those at Gerash and Baalbec. The columns were of immense size. To the north-west of this, hidden down among the *djbris*, lies the beautiful little Byzantine church (N) first discovered by Dr. Tristram. This requires searching for, as it may be easily overlooked, being now, if not originally, underground. It is in the form of a Greek cross, and is a perfect study of Byzantine ornamentation. Round the whole of the interior is a series of small round-headed arches, in which are carved patterns of flowers and other objects, all elaborate, and each one of distinct design. It was probably roofed with a dome. This church lies in the midst of a mass of ruins in endless confusion, which are bounded on the north and west by some fine walls of massive masonry forming the escarpment of the citadel on that side, which requires more defence than the others.

From this angle (O) a walk down Wady Hadâdeh takes us through a great many ruined houses, broken columns, reservoirs, &c., too numerous to particularise and difficult to trace.

The ruins of Ammân are undoubtedly of the highest interest; for beauty of ornamentation they will bear comparison with those of any Roman city; not so extensive as those of Gerash, nor so Cyclopean as the few that remain at Baalbec, they are more varied in style and period, and some individual buildings, notably the great theatre and the Byzantine church, are very striking. The Roman Philadelphia is what we see; what may be underneath of Rabbath Ammon we cannot say; but the magnificence of this, a provincial city of the empire, is quite astonishing. We enjoyed our Sunday here immensely; 2 Sam. xxi., which we read at our little service, had almost a weird interest. We celebrated our stay by giving our Adwan friends a sheep, which cost half a napoleon. The night was fine and cool. Thermometer 65°.

Monday, April 24.—After a nocturnal serenade of jackals we turned out early, and were soon on our way to Es-Salt, turning up Wady Hadâdeh to north-west, and then below the north front of the citadel to the north-east. Presently we entered and passed through a very pretty country, consisting of a series of park-like rocky glens, the grey rocks cropping out from the luxuriant herbage, and fine terebinths of every size and shape supplying the picturesqueness of timber, which is so sadly wanting in Palestine. In two hours we reached Yajus, where are the remains of a city or town finely situated in a fertile upland valley-plain. But little, however, is left, and the ruins tell no tale, consisting only of a few pieces of fine masonry, through which terebinths, 15 to 20 feet in circumference, have forced their way. An hour or so beyond this, we reached El Jabwâya, where are some more ruins;

sarcophagi, lintels, cornices lie strewn about; and from the hill a fine view is obtained over the Hauran, and the country towards Nablûs and Tiberias. Here we had lunch, washing it down with some fresh milk taken from goats that came opportunely within hail. Proceeding north we soon had a beautiful view across a valley called El Beja, on Gerash and the hills of Ajlun; Gerash could just be descried through our glasses. Passed through several wide valleys, or plains, mostly full of wheat, now showing the ear well. Beyond these, to the south-west, were ranges of hills, thickly clothed with forests of terebinth and holm-oak, extending for several miles. Crossing the deep Wady El Azrak and another ridge we reached Es-Salt at six p.m., finding ourselves during the latter part of our ride in company with a gradually accumulating crowd of Bedouins, flocks of goats, diminutive cattle, donkeys with the Arab ploughs on their backs, children, and dogs, all converging at evening to the sheltering cover of the town of Es-Salt. This day and yesterday we had seen enormous droves of camels, flocks of goats, and other signs of pastoral wealth. Arriving half an hour before sunset, we had just time to climb to the castle, garrisoned by Turkish soldiers; there is nothing in it of interest. It has a fine and commanding position—that, without much doubt, of the ancient frontier fortress Ramoth Gilead, which gave the kings of Israel so much trouble to conquer and to retain. The town, the first we had met with on the east of Jordan, is well built, and the environs well cultivated, with figs, olives, and pomegranates. It is also famed for its raisins. North of Es-Salt the population is more settled, and most of the towns are built of stone.

The next day, Tuesday, the 25th, we started to climb Jebel Osha, Mount Gilead. Threading some very pretty rocky glens and valleys, the lower portions of which were often terraced for vineyards, and the upper clothed with small trees and brushwood, we gained the summit in a little more than an hour. This is 3,470ft. above the sea. The tomb or wely of Neby Osha, the Prophet Hosea, after whom the mountain is now named, stands close by a magnificent holm-oak of great size. The view is exceedingly fine; no traveller should miss it. Looking across the Ghor, Ebal and Gerizim are clearly visible, and the whole of the country on the opposite side as far as Tiberias. On the right Jebel Ajlun bounded our view, and snow-capped Hermon still eluded us, though it is no doubt visible under favourable circumstances. To the left and behind us, south and east, lay the rolling highlands of Gilead, for the most part clothed with forests of oak, ilex, and terebinth. Having enjoyed this as long as we could, we descended nearly due east, and in a short time found ourselves in the direct road from Es-Salt to Gerash. This we did not intend to do, and it is a mistake. Travellers should insist upon getting down the hill somewhere nearly due north and passing by Jilad, Allân, and Shibân, a route apparently, from Dr. Tristram's description, much more picturesque than that which we followed. We passed through some open valleys and plains, rather bare, of which the most prominent and best cultivated is that

known as El-Beja (Al Bukâa?). At the north-east corner of this we again entered a woody glen, and winding down Wady Român, and across a ridge at the head of it, descended into Wady Zerka, the valley of the ancient Jabbok. This is a fine wide valley, and forms the principal drain of Gilead; the scenery is not unlike parts of Wales and the Tyrol. Just before coming to our tents, pitched in a beautiful level meadow on the other side of the stream, a wild cat and a jackal gave us an exciting chase; a volley of shot at the dripping jackal across the river only made him shake his ears. We found the Zerka a rapid stream, only to be waded at certain spots; oleanders and other shrubs fringed its banks, and our meadow was full of the most luxuriant vegetation. Here we encamped by the grateful stream, in the country of Jephthah and on the borders of Sihon and Og. The night was fresh and beautiful.

Wednesday, April 26.—After a dip in the swift stream, we mounted the hills behind us, and in about an hour and a half found ourselves at Gerash. This is indeed a wonderful and magnificent ruin. Undevastated by the hand of man, all its main features distinctly traceable, many of the noble buildings standing, though partially ruined, two hundred and thirty columns still erect, baths, theatres, temples, circus, forum, triumphal arch, recalling with no effort of imagination its former splendour, it is glorious and striking—a glorious ruin, a striking desolation. Pompeii alone, of all the ruins that I have seen, may be compared to it. At every turn are picturesque subjects for sketches, at every corner food for reflection. The position of the city was very fine; situated on a sloping hill, in the middle of the highland about 2,000ft. above the sea, it was conspicuous and central. The line of the outer walls is clearly seen, and can be easily traced. Outside of them, to the south, at the end of a long street, was a triumphal arch. Passing on and through a gateway in the walls, we soon enter the forum, an oval space surrounded by Ionic columns, of which fifty-seven are still standing. From the end of this a street extends for half a mile, crossed by another at right angles, and these two were both colonnaded, many of the columns still remaining. Here and there are square blocks or courts, porticos, portions of temples or public buildings, with columns erect or prostrate by the score. One once fine temple, of which not a single column is now standing, stands on an eminence above the forum, overlooking this and the main street; it is of good proportions and exquisite finish, and when perfect must have been a beautiful and conspicuous object. Near it is the large theatre, still very perfect, as is also the smaller theatre at the other end of the town. Baths also there are, and a vast quantity of buildings of less note.

But the gem, the glory of the city, is the Temple of the Sun. This with its propylæa and peristyle must have been magnificent. The portico and cell of the temple itself are still nearly complete, eleven out of twelve of the huge columns still standing *in situ*. It was a rare treat to sit in the shadow of one of them, looking at the rich

sunlight lighting up the rest, and thinking of the scenes which those columns must have witnessed. The tide of civilised life had ebbed, rolled back, and left Gerash stranded on its shore. As we sat there in absolute stillness, the only inhabitants we could note were a chameleon which peeped out of a crack, and a little owl that flew out of the sanctuary. Truly this is one of the "cities not inhabited." Never have I seen anything more striking than this lone and desolate city; it is a wonderful scene of grandeur suddenly eclipsed.

We found several inscriptions, some of which we copied. In reference to that given in p. 389, we can corroborate *λημης* in line 2, and *μεθρον* in line 3, though there are cracks in both places. In line 9 *μετωπω* is correct. Another of some interest is the following, of which, however, it is almost impossible to decipher the latter portion. It is in honour of a Christian martyr.

Δομος εἰμι αεθλοφορον Θεοδωρον μαρτυρος θαν (ατου) ωκεανω σωμα γαρ ενται . . . (εστι) ἡ ψυχη δ' εἰς ουρανν αγγελθη (?) Τελεο εικατη ραον ερμ
 αγρικ και νορπησ και εωρμενο μαρτυριον ηγιατης ινα κανηλθεν
 ταπε (ινος ?)

In the evening Sheikh Jusuf of Suf came to volunteer his services and show us his testimonials; as we knew the value of both, we did not cultivate his acquaintance, but our dragoman gave him a retaining fee for the sake of peace and quietness. A moonlight stroll to the Forum, the Via Columnata, and the Temple of the Sun concluded our most delightful and interesting day at Gerash.

Thursday, April 27.—After one more strol amongst the ruins, we left with regret the grand city; but we could afford no more time, for we were anxious to be at Nablûs by Sunday. Our ride this day was the most beautiful we had in Syria. The weather was delightful, sunny and balmy, and the views lovely at every turn. We began by mounting the hill behind Gerash, going nearly due west. Passing the village of Reimun, we skirted along the side of a hill, with the fine valley of Suf on our right, till we came to the village of that name. On our left as we rode along were groves of olives, backed by pines and fronted by green patches of wheat, or by the rich brown soil newly ploughed for sowing maize. On our right in the valley below was a good deal of cultivated land, with wheat, olives, figs, and pomegranates. Immediately beyond the village of Suf, a filthy place, we entered a lovely rocky glen, opening out here and there into wild and rough land which reminded us of many a spot in Wales and England. We then plunged into a fine forest of oaks, with a few firs and terebinths, and after crossing the ridge came down by the valley of Ajlun to the villages of Ain Jenna and Ajlun; all the villages here are built of stone. As we descended, going always north, the cultivation increased—pomegranates, olives, and figs predominating, while close to the village of Ain Jenna stand some noble walnut-trees, the most beautiful trees we had seen in Gilead. A mount of an hour from thence brought us to Kelat Er Rubud, a fine square castle surrounded by a moat, built by Saladin.

The view from the top of the castle is magnificent, finer, as it seemed

to us, than that from Jebel Osha; the air, however, was clearer. We could clearly discern the north end of the Dead Sea, as well as part of the Sea of Galilee, with the whole extent of the Jordan valley, the river gleaming here and there at its windings. In front of us, a little south of west, were Ebal and Gerizim, and directly opposite to us we could distinguish Mount Tabor, with the ridge of Carmel stretching into the far distance, and the wide plain of Esdraelon narrowing into the Wady Farrah, which debouches on the Ghor. Farther north we could see Jebel Safed behind the Sea of Galilee, and far away in the blue haze we were gladdened at last by the sight of the snow-sprinkled peaks of Hermon. It was a glorious panorama, embracing many points of interest, and withal most lovely in itself. We sat long enjoying it. Immediately in front were fine forests of oak, covering the rounded hills that trend down westwards towards the Ghor. Behind us lay the undulating heights of Gilead, the valleys of Kefrenjy and Zerka making wide landmarks.

Leaving Kelat er Rubud at 3 p.m. we scrambled down a very steep and rocky path, and leaving the town of Kefrenjy on our left, crossed the valley, and skirting its left side, wound down to our tents, which we reached at 5.30. The views in our descent were very pretty, and the country open, well wooded, and fertile. A good deal of the land was well cultivated, fig, olive, and carob trees telling of care and attention. Honeysuckle was in blossom, oleanders, and many other plants. Our camp was about half-way between Kelat er Rubud and the Ghor, perhaps 2,000ft. above the latter. Here, however, the tropical vegetation already began, as well as the thorns. Our tents being pitched near a marshy stream, mosquitoes and frogs were the order of the night; moorhens, mud-turtles, and molluscs invited aquatic researches; and an Arab rough made an unsuccessful attempt at burglary and felony, which failed through the vigilance of our guards. This was the solitary case of the kind during our whole trip; so much for the lawlessness of our poor friends the Bedouin.

Friday, April 28.—Made our way down the valley to the Ghor, which we reached in two hours; then had to ride along the bottom for three hours in a southerly direction to reach the ferry, which is nearly opposite Wady Zerka. The heat was great. Wheat is cultivated in small quantities, and we passed two palms and some mounds of ruins. The Ghor is here from eight to ten miles in breadth. The strata on the east side dip generally about here at an angle of 30° north-west, but in some places are nearly horizontal. At one o'clock we reached the ferry, and crossed over to the west side; with regret, for our trip on the east of Jordan was over. We had accomplished it most successfully; our dragoman, Abd-el-Hady, had managed very well for us, and all our own men had worked well and willingly; the Adwan had been most courteous and faithful; we had had lovely weather, and no contretemps or disagreeable incident had arisen to mar our perfect enjoyment. That night we camped in the Wady Farrah, and the next day rode at five o'clock into Nablûs.

A few words in conclusion. To any one who has accomplished it, a visit to the east of Jordan seems essential to the full comprehension of the "land flowing with milk and honey." If not a necessity, yet at least it is an immense help towards the realisation of that expression. The freshness and verdure which still exist in ancient Gilead are an index to the state of the whole country at the time of the conquest by Joshua. Its greater elevation no doubt made it always cooler, and better watered than the country west of Jordan; but the rocks and soil are generally identical, and, indeed, all the physical features. The fine forests about Jebel Osha tell how vigorously timber trees will grow, and the enormous population, evidenced by the remains of the great Roman cities, show that there was no difficulty in supplying nourishment for great numbers of inhabitants. Reuben and Gad were wise in asking for this district, but there were evidently forests and rich lands on "that side Jordan" also. A trip in Gilead is most refreshing after the dreary desolation of the wildernesses of Paran and of Judæa, and affords afterwards a most pleasing recollection of beauty of scenery and verdure hardly discoverable on the west, except at one or two favoured spots, such as Nablus and Carmel. The character of the Adwan, a fine type of Arabs, is well worthy of study; and the examination of the ruins, many of which have never been visited, full of interest. It is gratifying to think that this district will soon be thoroughly explored by the American branch of the Palestine Exploration Fund; but meanwhile every traveller who sees it, though he may not be able to add much or anything to the general knowledge of the country, may still learn something for himself, and will certainly have a most enjoyable trip. Appended is a list of the distances we rode, measured roughly by hours; considering the hills, the rocky paths, and occasional stoppages, three miles an hour will not be, I think, under the mark for a calculation of the mileage.

	h. m.		h. m.
Ain Sultân to the Ferry at the		Um as Samâk to Jebel Tahîn.....	1
Jordan	2	Jebel Tahîn to Ammân	1.30
Eastern bank to Nimrîn.....	2.30	Ammân to Yajûs	2
Nimrîn to Sûr	2	Yajûs to El Jubwayha.....	1.20
Sûr to Arak el Emir	1.30	El Jubwayha to Es Salt	3
Arak el Emir to Camp above Wady		Es Salt to Jebel Osha	1.15
Kefereîn.....	2	Jebel Osha to El Beja	2
Camp above Wady Kefereîn to		El Beja to Zerka	2.30
Jebel Jabûd	0.30	Zerka to Gerash	1.20
Jebel Jabûd to Wady Hesbân ...	2	Gerash to Sûf	1.30
Wady Hesbân to Jebel Nebba ...	3	Sûf to Kelat er Rûbûd.....	2
Jebel Nebba to Town of Hesbân .	1	Kelat er Rûbûd to Camp below	
Town of Hesbân to Ain Hesbân .	1.30	Wady Kefrenjy.....	2.30
Ain Hesbân to Um-al-Khanafish .	1	Camp to Ghor	2
Um-al-Khanafish to Jebel Naûr... 0.40		Along Ghor to Ferry at bottom of	
Jebel Naûr to Um as Samâk	1	Wady Farrah	3

A. E. N.

RETURNS FROM FOREIGN STATIONS MADE TO THE SCOTTISH METEOROLOGICAL SOCIETY FOR QUARTER ENDING
JUNE 30, 1871.

STATIONS AND OBSERVERS' NAMES.	Height of Station above the Sea.	1871.	BAROMETER.		SELF-REGISTERING THERMO- METERS.							HYGRO- METER.		DETERMINATIONS. Of Wind & Tables.		WINDS.										RAIN.						
			Mean at Station corrected, and at 32°.	Mean reduced to 32°, and Sea-level.	Monthly Range.	Highest in Month.	Lowest in Month.	Monthly Range.	Mean of all the Highest.	Mean of all the Lowest.	Mean Daily Range.	Temperature. Mean.	Dry Bulb.	Wet Bulb.	Dew-point.	Baro- metric Force at Vapour, Sat.=100.	Number of Days it blew in certain Directions.								Mean Pressure on square foot.	Number of Days it fell.	Amount.					
																	N.	N.E.	S.E.	S.	S.W.	W.	N.W.	Variable or Calm or N.W.								
BEYROUT, (Syria.) S. JACKSON ELDRIDGE, Esq., Consul-General for Syria.	160	April	29.756	29.926	0.350	73.0	57.0	16.0	68.3	69.3	8.0	64.3	65.4	61.6	68.5	490.	79	2	4	2	0	1	7	3	1	10	1.33	5	1.30			
KARAK, (Coele-Syria.) (?) JOHN SCOTT KATRAY, Esq.	2500	April	26.594	..	0.280	..	40.0	..	..	48.2	..	..	57.7	50.6	44.1	2389	61	1	0	1	1	6	14	5	2	0	..	5	0.56			
JERUSALEM, (Syria.) THOS. CHAPLIN, Esq., M.D.	2500	1870 Mar.	27.399	29.973	0.404	83.8	33.8	45.0	68.3	45.8	20.5	56.0	68.5	50.9	44.1	2790	59	1	1	2	10	1	2	10	5	6	4	0	0.28	9	3.99	
		April	27.389	29.983	0.392	85.0	30.6	54.4	61.6	43.9	17.7	72.8	63.8	48.3	42.9	2776	67	0	0	0	0	0	0	0	0	0	0	0	0	0.28	9	3.71
		May	27.411	29.985	0.302	99.0	36.8	48.2	85.5	61.4	24.1	73.4	78.1	59.4	46.4	315	83	3	7	5	2	1	2	1	0	0	0	0	0	0.22	0	0.00
		June	27.381	29.916	0.102	98.4	52.5	45.9	83.5	56.7	26.8	70.1	76.7	61.2	50.3	365	99	39	4	0	1	0	0	0	0	0	0	0	0	0.30	0	0.00
		July	27.255	29.875	0.180	98.2	53.0	45.2	87.1	59.9	23.1	73.0	79.6	64.8	54.7	428	42	3	1	2	0	0	0	0	0	0	0	0	0	0.28	0	0.00
		Aug.	27.279	29.730	0.240	95.1	57.0	38.1	87.1	64.2	22.9	75.7	80.0	66.0	56.4	455	44	4	3	1	2	0	0	0	0	0	0	0	0	0.05	0	0.00
		Sept.	27.401	29.885	0.270	100.0	57.0	40.9	44.1	59.3	24.3	72.0	75.8	63.4	54.3	423	47	6	5	0	2	2	1	3	4	0	0	0	0	0.00	0	0.00
		Oct.	27.447	29.971	0.280	87.5	44.0	43.5	75.6	51.5	24.1	63.6	67.4	59.1	52.5	397	59	5	1	2	2	1	3	2	1	4	0	0	0	0.05	4	2.29
		Nov.	27.543	30.063	0.344	82.0	40.8	41.2	70.7	49.3	20.4	60.0	63.6	52.0	42.4	298	45	0	4	1	3	0	1	1	3	0	0	0	0	0.12	1	0.10
		Dec.	27.492	30.102	0.320	71.8	37.0	34.8	62.5	42.4	20.1	52.5	55.2	50.0	45.0	301	69	1	3	5	4	2	1	4	5	0	0	0	0	0.07	4	1.45
		1871 Jan.	27.481	30.086	0.322	70.1	38.0	32.1	58.5	43.4	15.1	51.0	51.3	46.2	40.9	257	68	1	6	4	3	1	4	6	6	0	0	0	0	0.20	9	2.94
		Feb.	27.454	30.080	0.450	68.0	30.0	33.0	53.3	38.5	14.8	45.9	47.9	42.4	36.3	214	65	1	1	9	2	1	6	5	3	0	0	0	0	0.43	11	4.42

Reprinted, by permission, from the *Scottish Meteorological Society's Journal*, October, 1871.

NOTE FROM THE REV. J. NIEL.

A letter from the Rev. J. Niel, incumbent of Christ Church, Jerusalem, says :—"I have been so fortunate as to make some interesting discoveries in Tiberias two weeks ago. It should certainly be thoroughly explored. We found the ruins of the ancient city extending from the castle in the north to about a mile beyond the baths on the south—that is, for about two miles and a quarter, and extending most of the way from the shore to the abrupt hills which rise parallel to it." Mr. Niel has also forwarded copies of certain inscriptions which he has found in Galilee and elsewhere. It will be well for travellers to be careful how they purchase so-called ancient inscriptions, as the "carving of inscriptions in ancient character" has become a new and successful branch of industry in Jerusalem.

NOTE ON THE HAMATH INSCRIPTIONS.

BY HYDE CLARKE:

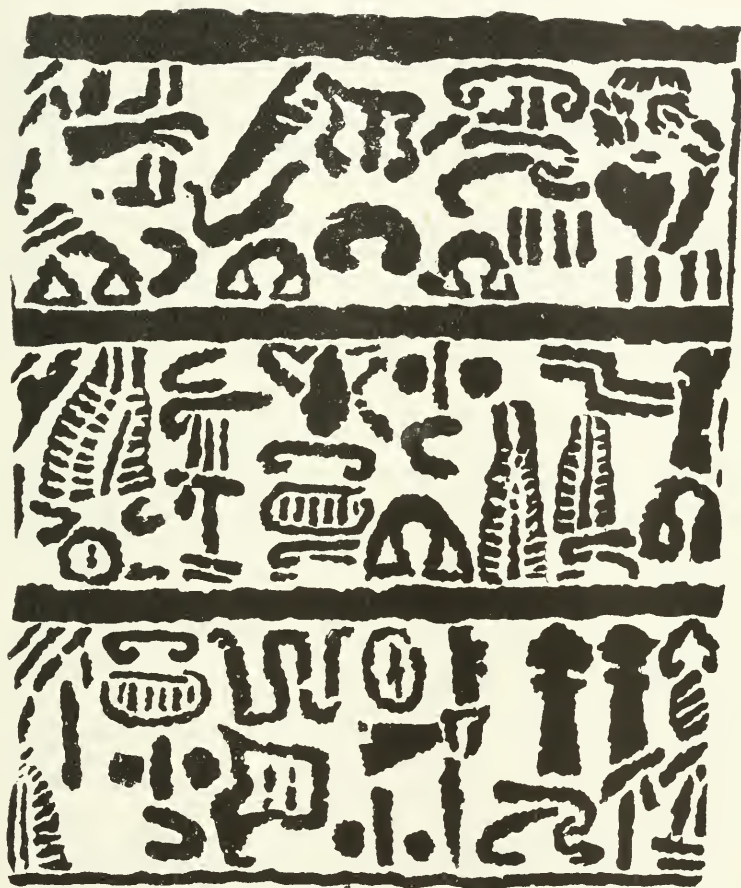
THE Hamath inscriptions excite great interest, and as they will soon be in the hands of scholars, I think it may be useful to publish the results of a cursory examination. This I do, because while in some quarters it is believed these will prove to be ancient and valuable inscriptions, yet in others they are pronounced by men of high authority not to be inscriptions at all, but vagaries of ornamentation. It is likewise doubtful if, on the supposition that they are inscriptions, the characters are ideographs, syllabics, or letters.

My inspection has been, as stated, a cursory one of the copies in the hands of Captain R. F. Burton, and of the small portions printed by Mr. Wilson in the Journal of the American Palestine Fund. The results are consequently open to verification, but they are already sufficient to throw some light on the questions mooted. Thus it appears that the matter consists of recurrent symbols, and that it is presumably composed of characters. I estimated the number of characters at upwards of 500, but they may be found to be more, when the opportunity of careful analysis is obtained.

Of one of these types I found thirty-three examples, of one twenty-one, of two eighteen, and of others the proportions which would appear in an alphabet. Other reasons support this view.

Although there is a figure something like a man with a club and two hands, the bulk of the inscriptions are not ideographs or hieroglyphs, but characters. There appear to be double letters, and possibly ligatures and abbreviations, but so far as can be at present judged the characters are rather alphabetic than syllabic, though some may be found to be so. The hands are found in Himyaritic.

On examining the most frequent characters, I am disposed to assign five as the vowel-aspirates of the old alphabets. Using the most



FACSIMILE OF A PART OF THE HAMATH INSCRIPTIONS TAKEN FROM THE SQUEEZE & PHOTOGRAPH.

convenient type symbols for the characters which are not available, these would be represented thus:—

÷	equal to	ⲁ, A, V,	i.e.,	A vowel	Kh	aspirate.
Ⲁ	„	Ⲁ	„	E	„	H
Ⲃ	„	Ⲃ	„	Oo	„	Y
Ⲅ	„	Ⲅ, U, V, O	„	U	„	V, F, Ph.
Ⲇ	„	Ⲇ, O	„	O	„	W, Hw

Ⲉ is probably S.
 ▽ appears to be D.

Other common forms include Ⲁ, ⲀⲀⲀ, Ⲃ, Ⲃ, Ⲅ, Ⲇ, Ⲁ, Ⲃ. These are sufficient to show elements of an alphabet, but many of them conform to the characters of the Himyaritic inscriptions, in which, as translated by Dr. M. Levy, I recognise as identical Ⲇ, Ⲃ, Ⲃ, Ⲃ, Ⲃ, Ⲃ, Ⲃ, Ⲃ, &c. The mode of writing is different in Hamath. The alphabet is in actual use in Abyssinia.

÷ thus gives us the type of ⲁ. This is not really connected with A, but is another type to be recognised in Aramaic, Italic, Palmyrene, and square Hebrew. ÷ is the analogue of ⲁ. If this be so, the ⲁ of the latter square alphabet has been borrowed from a source more ancient than A in the Phœnician and other alphabets. In Himyaritic Ⲁ is a bar of division between words and ÷ sometimes assumes the same character.

Ⲃ appears as a new type, but is the analogue of the Phœnician, which has a corresponding form as in Greek, ε. It is the most frequent letter, occurring thirty-three times. This letter may also be recognised in Phœnician, Aramaic, Old Hellenic, Italic, and Palmyrene. It appears to possess a double form, one less frequent, in which a dot appears on each side of the bar.

U needs little comment; it occurs eighteen times. Its value is 100.

O occurs about ten times. Its value is perhaps 1,000.

The Hamath inscriptions confirm my former opinion that the alphabet as named by the Hebrews is not in its right order, and that the names are not the original names having the significations usually attributed to them, but are representatives of the ancient names, adopted to avoid idolatrous references. All the alphabets of the Hamath class are chiefly founded on the intersections of two crosses, still used by Rabbis, &c., as a secret alphabet.

The words or phrases appear to be read from top to bottom, and may then possibly return, as in boustrophedon and in Himyaritic.

The remains on comparison suggest that there are at least two inscriptions differing in character.

The inscriptions are of such antiquity that if on transliteration they do not conform to a Semitic rendering, I would suggest they should be tried for Georgian, the nearest representative of the Caucaso-Tibetan languages spoken in the region before the Semitic.

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* * * The Committee have to acknowledge with thanks a donation of six
copies of Mr. Waddington's "*Inscriptions Grecques et Latines*,"
Paris, folio, 1870, from the Author

THE PALESTINE EXPLORATION FUND.

THE SURVEY.

The following are extracts from letters received during the past quarter from Mr. C. F. Tyrwhitt Drake. They contain much which will be read with great interest by the subscribers:—

I.

YAZUR, NEAR JAFFA, *April 15, 1872.*

On the 3rd inst. we pitched our camp here, as I was anxious to fill in this piece of country before the hot weather came on, deeming it most unadvisable to expose men new to the climate to the great heat of the maritime plain in summer. Even at this early season we have had some warm days, on which the thermometer has been above 80° F. in the shade. There is yet another reason for avoiding the plain in summer, namely, the impossibility of distinguishing small objects, such as poles, cairns, &c., at a distance of six or seven miles, owing to the mirage, which makes a hill-top observed through the glass undulate like the sea during a heavy ground-swell, or rather, waves of semi-opaque air seem interposed between the observer and the distant point. As this has already proved a considerable hindrance to us, I intend to move up into the mountains for the rest of the summer as soon as the immediate neighbourhood is finished. In this light stoneless soil it was a matter of some difficulty to put up suitable objects to observe to; we have found a pole, firmly stuck in the ground and swathed with bundles of dry grass or small bushes, to answer the purpose very well.

Owing to the constantly recurring annoyances to which we were subjected by the fellahen, I have judged it advisable to attach a *kheyal* (one of the irregular horse supplied by Government) permanently to the camp, as it stamps the expedition with Government authority, and keeps the natives in check. As the fellahen are men who will hold up their right hands and swear by God and the prophet, by my life and by their own, that they love me better than their fathers or their brothers, that they are my slaves, &c., &c., and at the same time will filch with their left hands, it is as well to have some little show of authority.

Most tourists who pass through Jaffa doubtless know that a German colony flourishes there, and many may have seen the Jewish Agricul-

tural School, situated some two and a half miles S.E. of the town on the Jerusalem road. Few, in all likelihood, will have had time or opportunity to learn more than some main facts regarding them. I have therefore collected information which will, I think, prove generally interesting. This being derived from all sources, frequently contained the most decided contradictions, as each native interested in the matter gave his own colouring to it, and the truth could only be found by carefully sifting the evidence. I must take this opportunity of thanking M. Netter for the great courtesy and openness with which he supplied me with information on the subject.

The "Mikveh Israel," as the Agricultural Institution of the Universal Israelitish Alliance has been named, covers 2,600 dillem (1 dillem = 1,600 square pias; 1 pic = 0.76 metres), or 316 hectares, which equal 781 acres, and of this one-third has been newly brought under the plough. This land is to be held free for ten years, and after that to pay a quit-rent of £70 Turkish, or £68 sterling. Before the land was granted by the Sultan for the purpose of founding an agricultural school, it was cultivated by the villagers of Yazúr, and though the land belongs to Government, the fellaheen, from long usage, have got to look upon it as virtually their own, and resent its occupation by any other person. In this case the men of Yazúr—a village with a mixed population well meriting the bad reputation it enjoys—were particularly enraged, as it had for a long time been their custom to plant gardens on the extreme edge of the land they cultivated, and then sell them to the people of Jaffa, in this way disposing of crown land for their own benefit. Thus cut off, by the interpolation of the Jewish colony, from a source of large revenue, they naturally became bitter opponents of the Agricultural School, which at this moment, however, employs from 80 to 100 fellaheen, who are chiefly from Yazúr, a small number being from Sélameh, Beit Dejjan, and the neighbouring villages. A larger proportion of Yazúr men was formerly employed, but they were found so dishonest that it was necessary to discharge them.

After some delay 1,600 dillem were allotted to the village of Yazúr from the Beit Dejjan territory, which is very large, as compensation for what had been taken away on the other side. Still the fellaheen complain that they were not paid for land which they own to be Government property! I can only say that it would be a most excellent thing if the Government set aside its dislike to selling land to foreigners. With proper guarantees a large proportion of this country would find a ready market, and then the present fellah would be either eliminated or converted into a useful member of society, while the increase of revenue to the Turkish Government would be very considerable.

The men of Yazúr vow that they are completely ruined; but they were still able, some three months ago, to offer 65,000 piastres (£520 sterling) for 4,000 dillem of land which the Government wished to dispose of to the south of their village. One party, led by the Mukhtar (Headman) Mahmúd, is a violent opponent to the institution, but a large

section of the villagers who work on the estate, and receive from three and a half to five piastres (75 cents to 1 franc) per diem, are content with the arrangement.

The object of the Agricultural School is to train up children to a useful and industrious course of life; to teach them market-gardening rather than farming, as the former is always a profitable pursuit in the neighbourhood of towns, and the latter, owing to restrictions imposed by the Turkish Government, and jealousy of the fellaheen, is very precarious. A practical knowledge of land-measuring will also be taught, and will doubtless obtain Government employment for some of the pupils; native surveyors being generally incompetent and always open to a *douceur*, both of which qualities are found to have their disadvantages.

The school has been opened since July, 1870, and now has twelve pupils (viz., one accountant, three shoemakers, one farrier, four gardeners, two carpenters, and one agriculturist), but it is hoped that sufficient buildings will be ready to receive twenty-eight more at the end of the summer. At present all the pupils are Jews, but, according to the agreement with the Sultan, both Christians and Moslems are to be admitted on payment. One primary difficulty now being overcome is the establishment of a common language, without which it would be impossible to enter upon any course of instruction, as some spoke Spanish, others German, Polish, or Russian. French is the language adopted, and with success. It is hoped, when funds permit, to increase the number of pupils to one hundred, and to establish a school for the same number of girls. It is proposed to cultivate fruits and vegetables of many kinds, which will doubtless find a ready market at Jaffa, especially during the tourist season; at Port Said, where the rapidly increasing number of vessels passing through the Suez Canal will ensure a constant demand; at Jerusalem, where there is a large resident European body of consuls, clergy, &c., and, to some extent, at Beyrout. Twelve steamers belonging to three companies touch monthly at Jaffa, and might be looked to not only as a means of transport, but as consumers.

Trees are to be cultivated, and M. Netter tells me that the nursery already contains more than 100,000 plants of different kinds, and that half a million of vines are also planted. As the land borders on the sandhills, which are rapidly advancing in a north-east direction, it is proposed to plant a belt of *pinus maritima* along the edge of the dunes. In some places, already covered with sand, it is found to be no more than one metre in depth; in time it is intended to clear this away. The rate at which the sandhills advance is, of course, very difficult to determine, but it seems to be about two to three yards per annum, judging by the rate at which it is overwhelming a garden to the south of this village computed by a comparison of several independent testimonies. At the Jewish colony, however, the rate would not be nearly so great.

It is also proposed to cultivate flowers for making scents, to make

olive oil and soap, and to tan the skins, which are exported raw at a low price and brought back again as costly leather.

By these means it is hoped not only to make the Agricultural Institute a means of bettering the condition of the Palestine Jews, but also a successful mercantile operation. Whether the latter comes to pass or not, the former consideration is enough to recommend it to the attention of those Jews in Europe who are really anxious to improve the degraded state of their co-religionists in Palestine.

The German colony at Jaffa next deserves our attention. As it is the result of a religious movement, a few words of preface are necessary to explain the reason of its existence there.

Some fifty years ago a society was formed by Dr. J. A. Bengel, the well-known author of the *Gnomon of the New Testament*, at Kornthal, Würtemberg, in expectation of being called in some direct manner to the Holy Land. After a time this body dissolved itself, and the present society, called "The Temple," was founded, or rather revived, on the principles of the former, by Herr Christopher Hoffman, son of one of Dr. Bengel's co-operators. He was presently joined by Herr G. D. Hardegg, who is president of the Haifa, as Herr Hoffman is of the Jaffa colony. The society has members in Russia and America, but chiefly in Germany. It is called "The Temple" from the belief of its members that they are fulfilling Scripture by founding a spiritual temple in Palestine. Their doctrines are set out at length in several publications printed at Stuttgart and elsewhere in Germany and America. Land is bought as occasion serves by the committee in Palestine, and allotted at cost price to members enrolled in Europe. As yet Haifa and Jaffa are the only places where land has been bought. There are, however, some fifty members of the society at Jerusalem, twenty-five at Beyrout, and a few at Alexandria; these are all either domestic servants or artisans.

The Haifa colony was founded in October, 1868, and now numbers some 300 souls. Twenty-four stone houses have already been built there. A grant of between five and six thousand acres has also been promised them by the Turkish Government on Mount Carmel. On this it is intended to build a town and cultivate the soil, devoting especial attention to vine-growing. In this colony there are five families of American citizens, German by birth.

The Jaffa colony was founded six months later, and began by gradually buying from private individuals the houses built by the American colony which had been tried there and failed. Eight of these houses were so bought, and afterwards five others in or near Jaffa. Ten others are either built or in course of construction at Saron, some two and a half miles N.E. of the town.

There are about 100 men, 70 women, and 35 children in the colony. (The total number of members in Germany amounts to about 5,000 souls.) The trades are distributed as follows:—2 doctors, 1 engineer, 1 hotelkeeper, 1 watchmaker, 2 joiners, 2 carpenters, 2 masons, 2 shoe-

makers, 2 merchants, 2 blacksmiths, 1 painter, 1 miller, 1 saddler, 1 butcher, 1 baker, 1 gardener, 1 chemist, and 1 locksmith, the rest being mostly farmers.

Some native labourers are employed, chiefly as masons, but a few as artisans and farming men; their wages range from five and a half for ordinary up to twenty piastres a day for skilled labour. The land they have bought contains about 400 acres of arable and two gardens. The former produces wheat, barley, sesame, and potatoes, for home consumption; the latter give vegetables, oranges, peaches, apricots, &c. The colony is self-supporting, but some of the missionary work is aided by contributions from their brethren in Europe and America. The ordinary taxes of *'ashr* (tithe), poll-tax on sheep and cattle, and *ad valorem* on gardens, are paid to the Government as by natives.

At both Jaffa and Haifa there is a school for boys and also for girls. The former are taught Arabic by a native teacher, as well as German, English, French, and mathematics, and in the higher classes Greek, Latin, and drawing. Herr Hoffman is the elder of the society, there being no regular clergy, and meetings for prayer and to discuss the welfare of the society are held in the school. Baptism and communion are optional. The civil register of marriages is kept at the German consulate. Any Christian giving his adhesion to the rules and regulations of the society is allowed to join with them, whether his peculiar tenets would cause him to be classed as Greek or Armenian, Protestant or Roman Catholic.

The climate is found to be healthy, slight fevers being the most common complaint, especially near the town gardens. The new colony at Saronia will probably prove more healthy, being built on a ridge of sandstone, away from vegetation, and exposed to the sea breezes.

The colonists being hardworking, honest men, are well spoken of by the natives, with whom they are on a friendly footing, though, luckily for themselves, they are virtually independent. These two colonies, Semitic and Germanic, though distinct in their aims and working, cannot, I think, fail to have, so far as it extends—for, considering the people whom it is likely to influence, I am not disposed to rate it too highly—a salutary influence in pointing out the advantages arising from careful industry. With all his evil qualities the fellah is not altogether incapable of adopting improvements, especially if likely to produce piastres. If, then, these colonies be encouraged and extended, one may reasonably hope for some slight improvement of the native population in their immediate neighbourhood.

II.

CAMP AT KHIRBETHA IBN HARITH, *April 28, 1870.*

The picture I am going to draw of peasant character in Palestine is not a bright one, and has but few touches of light to relieve its sombreness.

"Eastern life" has become with us in Europe almost synonymous with a life of romance, poetry, houris, and flowers, of gorgeous raiment and matchless steeds, of jewels and luxury. What can be more romantic—in print—than the tameless son of the desert, free as air, chivalrous as Bayard, mounted on his priceless mare returning from a successful onslaught on his foes, to lay the spoils of shawls from Khorassan and Kashmir, silks from Damascus, and gold filigree work from Cairo, at the feet of the dark-browed maiden whose gazelle-like eyes have caused more havoc in the desert than ever did the arrows of Abu Zayd the invincible? Are not the pearls of the harem said to be peerless in beauty and grace, and their wondrous loveliness to overpower the senses like the air heavy with scent of orange flowers and jessamine beneath their own sunny sky? Have not the "Arabian Nights" taught us that rubies as big as pigeons' eggs, and pearls the size of raspberries, are common, while gold is dross to be scattered broadcast to gaping crowds by the princes of Islam? Alas! that truth with one stroke of a realistic pen should destroy this dream of poetry. Let us see the Bedawin as he is. Living under hair-tents, in squalor, filth, and ignorance, his chivalry degenerates into simple freebooting, his priceless mare is—*exceptis excipiendis*—a scraggy, thin-chested, drooping-flanked beast, capable by some peculiar provision of nature unknown to the horse of civilisation, of going long wearisome journeys with little water and less food; her pace, however, is little more than three miles and a half per hour, and if pressed she soon fails. The Bedawin's dark-eyed love is perhaps not ugly at twelve years old, but at twenty she is perfectly hideous and looks forty. From earliest girlhood she is brought up as a hewer of wood and drawer of water. For the first seven or eight years of their lives, all the children play about the ragged tents in happy community of ideas with the kids and lambs, puppies, chickens, calves, and camelets. After that they tend the flocks; at ten or twelve the girls marry, and the boys, so soon as they are grown up, leave all toil to the women and children as unworthy of their manly dignity. A successful foray raises them in the social scale, as a grand *coup* on the Bourse or Stock Exchange does in more civilised lands. Though wealth be power everywhere, it is nowhere more potent than in the East, where competitive examinations and compulsory education are equally unknown. Still a good word may be said for the Bedawin in districts where contact with Europeans has not spoilt them. They are then hospitable after their fashion, always offering a meal to the passing traveller, and though they will do their best to overreach and

cheat in making a bargain, yet once the affair settled and their word given, a breach of faith is seldom, I may even say never, known.

As to the veiled beauties of the harem, we must trust to the perhaps somewhat *ex parte* descriptions of European ladies, and such stray glimpses as chance may show. Neither of them carry out the ideas of loveliness implanted by the "Arabian Nights," and one who has lived in the native quarters of Eastern towns will be well aware that the fair sex is cursed with a most vile shrewish tongue, and makes use of undiluted Billingsgate on the slightest provocation, in tones which force themselves to be heard by all the neighbours.

But to turn to the fellaheen. From earliest infancy they are brought up in utter ignorance; they are never children, the merry laughter and sports of European childhood are here quite unknown. At three years old they are little men and women with wonderful *aplomb*. Tiny dots scarcely able to toddle may be seen gathering *khobbayzeh* (wild mallows) for the evening meal, and when they have filled the skirts of their one wee garment, will trot home as sedately as though the cares of life were already pressing heavily on their shoulders. I have seldom in this country heard a genuine laugh from man, woman, or child; the great struggle for existence seems to have crushed all but fictitious mirth.

The fellaheen boys—very rarely the girls—take charge of the flocks and herds till they are old enough to consider themselves men; thus exposed to all weathers they are as hardy as their charge, but if attacked by sickness one is as little cared for as the other, and chronic coughs, fevers, rheumatism, and ophthalmia, are the consequent results.

The physical and mental degradation of the women, who are mere animals, *proletariæ*, beasts of burden, cannot but have a most injurious effect upon the children. The foul language in common use by men, women, and children, but especially the latter, is startling.

A father's pride in his children is little better than that of the beasts for their offspring; he has no care for their improvement in any way, and consequently they grow up utter savages, never corrected for faults nor praised for doing well—often the reverse—and ignorant to the last degree. Besides this, the children are spoilt, and have their own way completely; if thwarted they abuse their parents and elders, who merely return the abuse with interest. More than once I have had a sick child brought for me to doctor, but on the brat's objecting to have eye-lotion administered, or even to be closely looked at, the fond parent would remark, "Don't um like medicine, then, um shan't have it then," and sent the little wretch away, looking upon me with horror and indignation for suggesting a slight correction.

Privacy is absolutely unknown. Anybody's business is everybody's business. If any transaction, private quarrel, or discussion, be going on, every one present puts in his or her word. Hence in villages where there are two factions, brawls ending in bloodshed have not unfrequently arisen out of petty disputes between women and children. For private

talk it is common to see two or three men seated under a tree in an orchard or olive grove, where there is no possibility of being overheard.

The fellaheen are all in all the worst type of humanity that I have come across in the East. The 'Ammarin and Lyathineh of Petra are perhaps greater ruffians, being beyond the reach of troops, but they are known to be lawless plunderers, and the traveller expects the worst from them. The fellah is totally destitute of all moral sense; he changes his pledged word as easily as he slips off his *abba*; robbery, even when accompanied by violence and murder, is quite in his line, *provided* he can do it with little fear of detection. To one who has power he is fawning and cringing to a disgusting extent, but to one whom he does not fear, or who does not understand Arabic, his insolence and ribald abuse are unbounded. As an instance, I may quote the fact that when we were taking observations from Beit 'ur el Foka, the men were servile and deferential before me, but a few days later one of the non-commissioned officers and a native servant rode past the place, and were abused in most scurrilous language by the children, who were edged on to it by their elders.

I am well aware that this slight though far from hasty sketch will seem overcoloured to many whose acquaintance with the country is but that of a holiday tourist; but a more intimate contact with the people and knowledge of their language would soon modify any favourable ideas based upon their picturesque vagabondism, and the transient skin-deep civility produced by a backshish. The fellaheen themselves have often said to me, with that implied exception in their own favour so characteristic of the semi-savage, "All the fellaheen are liars, poor men always are; we know that the Franks always speak the truth, but our people never do." The Syrian proverb, "Lying is the salt of a man," is characteristic.

Naturally the fellah is not wanting in intelligence; the boys, in the towns, show considerable aptitude for learning till they reach the age of thirteen or fourteen, after which they advance no further. The very early marriages doubtless conduce to this. Still, under a well-regulated system of education, what natural good points they possess would be fostered and encouraged, and in two or three generations the people might be developed into something useful. There is no class corresponding with our landed gentry or large farmers to whom they can look for assistance, and to whose interest it is to help them. Thus till some radical change be effected, little, if any, amelioration in their condition can be looked for.

The other day I was witness to a characteristic little scene. Some four or five soldiers were at the village of Dayr Kadis collecting the poll-tax on goats. One man either could not or would not pay, so the soldiers began to tie his hands together, preparatory to taking him off to prison. While they were thus engaged one of the bystanders rushed in and dealt the prisoner several shrewd knocks on the head

with a heavy stick, abusing him loudly meanwhile, and urged the soldiers to beat him, to which one of them complied by prodding him with the heavily ironed butt end of his lance. I asked the reason of this fellah's behaviour to his fellow-villager from some men who were looking on in a most nonchalant way. "Oh," they replied, "that's his brother, who beats him to make the soldiers believe that he has no share in refusing to pay the tax." It struck me as a curious way of showing brotherly affection.

The houses of the fellaheen are generally miserable huts, dark, dirty, and comfortless; in the mountains they are built of stone, or mud and stone combined, and generally roofed with bits of rough timber on which bushes and a couple of feet of soil are laid. These roofs require careful rolling at the beginning of the rains; if this is not done the water sinks in and causes them to collapse. Inside the house there is no furniture beyond a few rush mats, or if the man be well off, a carpet and some *lehafs* (cotton quilts). A very limited number of pots, pans, and jars serve for cooking. They seldom eat meat except at the 'Ayd el Kebír (great feast), or when an animal has to be killed to prevent its dying a natural death. The bread is generally made of millet or barley, rarely of wheat; this, with milk in the forms of *leben* (sour milk), *semn* (clarified butter), and cheese, and eggs, form the chief part of their food. In the poorer districts wild mallows (*khob-bayzeh*) and other herbs form an important item.

III.

'AIN SINIA, May 18, 1872.

Being lately in Jerusalem for a few days, I took advantage of an offer of Dr. Chaplin to go with him and examine what seemed to be the remains of two Christian churches in the present Jewish quarter of that town. It appears probable that the Jews were once located near the Bab Hatta, *i.e.*, north-west of the church of St. Anne, for several of them own houses there, and have lately taken to live in them.

The first house we visited is near one of the Sephardim synagogues, and belongs to a Jew from Fas in Morocco. In an upper room, divided into two by a wooden platform—as is the common custom here amongst the Jews, who are fearfully overcrowded—we found two semicircular recesses, evidently apses, now used as cupboards. They faced due east, and measured across about seven and a half and five feet respectively. In some of the lower parts of the house are traces of an older masonry, upon and into which the present dwelling has been fitted.

The second house visited stands in the Maydan, about west-south-west of Robinson's Arch on the brow of the hill. The substructions consist of long vaults with slightly pointed roofs of rubble grouted in. Above these seems to have been a large chamber, the vaults springing

from corbels like the enclosed sketch : of these, one is pretty perfect, and another is half-concealed under plaster beside the entrance door, on the lintel of which is a roughly cut inscription, seemingly in Latin; it has been carefully obliterated, and nothing can now be made out but 8. NOV. at the end. In the basement of the house are several pieces of masonry which, judging from the dressing of the stones, are of Crusading date. In the house to the north of this is a doorway, with circular arch and plain mouldings. This is now blocked up, and not at all visible from the north side, which is in a house occupied by a Moslem. A stone coffin is said to be buried at the door of the Jew's house in which this arch is to be seen. Here, too, is a well of brackish water, similar in taste to that of Siloam, and 33 feet deep, which the owners declare to be a never-failing spring. In the house next below, the water comes from a cistern, and is pure and sweet. The Jews have a tradition, which is doubtless true, that both the places I have mentioned above were convents.

The mosque belonging to the Mowlevi Darwishes, which stands a little east of the entrance to the Royal caverns, must also have been a Christian church: I presume that the plan of this has been already made; if not, I will forward it to you on the first opportunity.

There are also some very interesting arches running north and south through the back of the shops on the east side of the principal Jewish street. These arches are round and built of very large stones, with little, if any, cement; the style of masonry appears exactly similar to that used in the fine Christian church at Amwas. Should these not yet have been described, I will examine them with greater care on my next visit to Jerusalem.

The country that we are now in abounds in olives, figs, and vines, to an extent that the ordinary traveller passing along the beaten tracks has no idea of. The valleys are almost precipitous, but terraced from top to bottom; low walls are built on the edges of the steps formed by the strata, to prevent the earth being washed down. These terraces are called by the natives *Ahbál* or Ropes, and render cross-country work always difficult, and in many cases impossible. Corn, barley, and lentils are here grown, as well as *Kursenni*, which may be called horse-lentils, being only used to feed cattle.

Between this place and our last camp—Khirbeth ibn Hárítu—I noticed that a considerable tract of the hills is thickly sprinkled with gnarled and stunted specimens of a species of pine called in Arabic *Sinobar*. This tree seems formerly to have extended south of Jerusalem, but two or three isolated examples close to the town are now all that remain. In the Lebanon it grows to upwards of 30ft. in height, especially on the out-crops of sandstone which occur east of Beyrout. A species of hawthorn, too, is found here, which I first noticed in North Syria and the district of Aleppo, bearing a fruit the size of a large morella cherry, and of a rather pleasant subacid flavour. It is both eaten raw and made into preserves and pickles.

My time has lately been so fully occupied with out-of-door work that I have found but little leisure to study topographical questions; but the list of towns assigned to the tribe of Ephraim, in whose territory we now are, being lost, few identifications can be looked for except maybe of certain places incidentally mentioned. Several of the names are highly suggestive of old Hebrew ones, but as Dr. Robinson most justly observes, we must expect to find many names repeated, as is the case in the modern nomenclature not only here but also in Europe.

There is a crusading fort about a mile from this place, called Burj Bardawil, "Baldwin's Tower," evidently built to command the road between Jerusalem and Nablus. The construction is strong, but rude and inartistic. I shall send you a plan as soon as it is made. Some four years ago a small civil war occurred between half Yabrud, half Selwad, half 'Ain Abrúd, and 'Ain Sinia, against the other halves of the three first-named villages. This fort was occupied by each party in turn, and about 110 men were killed. The *finale* was as usual, the Government came down and conscripted many of the survivors, imposed heavy fines, and half-ruined the people, since which time they have been outwardly quiet and well-behaved, with the exception of a few cases of murder and robbery.

IV.

'AIN SINIA, May 27, 1872.

Excavated tombs are to be found throughout the whole of Palestine. In many cases they are scattered singly about the hills, as though some individuals preferred having their tombs in their own vineyards (e.g., Nicodemus's tomb in his garden). In other places they form a regular cemetery. Over one of the tombs in this neighbourhood I found a Hebrew inscription, which is plainly legible, but having been cut on a very rough surface, I found it impossible to take a good squeeze of it.

The interior of the cave is unfinished, and on the north side is a rude kind of alcove or *mastabah*, on which a body was laid. This tomb had been entered by the fellaheen some time ago in hopes of finding treasure, but they were rewarded by nothing but a few osteophagi, which they broke up. I enclose a sketch showing the chief characteristics of these, which are of a harder stone than those found near Jerusalem. I also met with fragments of very thin, hard glass, broken pottery—originally large jars, with ribs running round at regular intervals—and one small long-necked jar (broken) of good red ware. The bones were in a very decayed state. I succeeded, however, in securing some fragments of skulls sufficiently typical. In the centre of the cave lay a skeleton in good preservation, but from its position comparatively modern. In the skull I found three olive stones. Now at Palmyra Captain Burton found peach, apricot, and olive stones in the skulls of mummies, and at Shakka in the Jebel el Druze, Haurán, we found an almond with the

top cut off diagonally in one of the mummy skulls from the Tower of Bassus. It is very puzzling to find this superstitious observance—whatever its import may be—adhered to in the case of a burial which to all appearance cannot well be earlier than the thirteenth or fourteenth century. In this case, however, it has occurred to me as possible, though not probable, that the olive stones in question were carried there by mice, and left by them after they had eaten the berry.

I opened another tomb close by the above-mentioned, and though to all appearance it had not been recently disturbed, it proved to have been pillaged. I found nothing in it but bones much decayed, and fragments of glass and pottery similar to those in the other cave. Near the door (which in both cases was the usual block of stone fitting into the square entrance) I found an ivory comb, fragments of charcoal, and part of the bottom of a glass, with either cut or moulded faces; owing to the oxydisation it is impossible to say which.

The crusaders must have had quite a colony in this district. Burj Bardawil (Baldwin's Tower), a little north of Yabrud, commands the junction of several wadies, and the highway from Jerusalem to Náblus. Near this village is a ruin called Khirbet Satti, which tradition makes the stables of the above-mentioned fort. At Jifneh, near the modern Latin monastery, there is a ruined tower, and traces of other buildings which must be ascribed to the same period. At Arnútieh, too, they seem to have had a fort commanding the Náblus highway and the old Roman road leading to Antipatris, *viâ* Tibneh. This colony would have been connected with Jerusalem by the important posts of Beitin (Bethel), Bireh (Beeroth), and Nebi Samwíl.

The ruined khans at Miskah and El Burayj in the wady between Beit 'Anan and Beit Nuba, must be referred to the same date.

I have noticed one prevailing characteristic in all these, viz., the use of drafted stones, sometimes with two bosses, at the corners of the buildings, and nowhere else. Vaults with very slightly pointed arches are extensively used, and are solidly built with rough stones, and a large quantity of good cement. The faces of the ashlar being left rough, no masons' marks have been found as on the smooth-dressed stones at Nebi Samwíl, Kawkat el Hawa (Belvoir), &c.

The piece of difficult country near this place, in the middle of which is the spring aptly enough termed 'Ain el Haramíyeh, the Thieves' Fountain, seems always to have been regarded as the key of the road between Jerusalem and Náblus, for on the hill opposite to Burj Bardawil, and east of 'Ain el Haramíyeh, I found the ruins of an important fort, Burj el Lisáneh (the Tower of the Tongue, probably so called from the spur which it occupies). The situation is most commanding, being, with the exception of Tell 'Asúr, which rises to some 3,100ft., the most elevated hill-top in this region. The ascent is by a difficult goat track from near Selwad, or the round-about road from Mezra'a el Sherkiyeh. From the north and west it is almost inaccessible, there being about halfway down the hill one of those precipices of smooth

rock, some 20ft. to 30ft. high, which are so common in this neighbourhood. The summit is nearly circular, and on it are many ruined walls built with massive cubes of rough-hewn stones, a few well-dressed drafted examples of considerable size being found at intervals. I remarked many unusually large excavated cisterns, but of the common bell shape. In the centre of the ruins is an oblong building, some 40ft. by 20ft. It was originally covered in by a round arched vault of masonry. The doorway, which is at the east-north-east end, is composed of large carefully-dressed drafted stones. The entrance is only about 5ft. by 3ft., and inside are three sockets for bars, and a circular hole above either to receive an upright bar, which would prevent the door from being fully opened, or to attack the besiegers through in case the door was forced.

Though the building has all the appearance of Roman work, it still seems to have been built of old materials, as in one or two places I noticed stones with rustic bosses, the rest being rough-dressed. Some fifty yards to the north-west I found six prostrate limestone columns, 7ft. 6in. high, and 1ft. 6in. in diameter, the only ornamentation being a double fillet at top and bottom, but broader at the latter. Though the stones have mostly been cleared away to make room for vines, still two or three pedestals remained *in situ*, and I could trace the general plan of the building, which ran nearly north and south. It must have consisted of three rows of arches supported at the sides by pilasters, and down the centre by two rows of three or more columns, as I observed a similar pillar at a little distance.

The present Christian population at Jifneh, Bîr el Zeit, 'Abûd, 'Ain-'Arik, Ram Allah, Jania, and Tayibeh, is probably due to the fact of a strong crusading centre having existed in their midst. Most of these Christians are Greek orthodox, but in places, as at Ram Allah, Jifneh, and Bîr el Zeit, where the Latins have established monasteries and churches, about one-fourth to one-third of the population adopt their ritual, purely as a matter of policy, for of dogmas or tenets they are quite unconscious.

The Christian party in Palestine is so small that, as they have often told me themselves, without the helping hand of consuls and convents they would be pushed to the wall.

I have no intention of here discussing the general effect of European missionary influence, whether lay or ecclesiastical, in Palestine; but I may mention one fact which militates strongly against the spread of Protestantism, and which seems to have been universally overlooked or ignored. I refer to the necessity of native clergy, or at all events of an Arabic-speaking ordained minister, in every place where it is intended to establish a Protestant community. A Bible-reader may be a most excellent individual, but that he should conduct a religious service is not at all agreeable to the ideas of Oriental Christians. A native priest, it is true, can seldom boast of much more learning than his flock, except that he can probably read and write a little, but still he is looked up to

as an ordained minister, and assumes a position which no layman can ever occupy. Till each community of Protestants has its own ordained minister, little progress will be made except in the matter of schools, by which, after all, more real and lasting benefit is conferred on the people, if the teaching be adapted to their requirements, than can be secured by any amount of adult diverts. In any case little visible advancement can scarcely be hoped for in less than two or three generations, so great and radical is the change which must be brought about. At a future period I hope to give a full account of the social, political, and religious aspects of this country in the year of grace 1872, which, however, would be out of place in these sketches of our survey.

These South Palestine Christians have, on the whole, though turbulent and unquiet, left a better impression on my mind than their North-country brethren. They seem more courageous, and probably their willingness to defend themselves prevented the Syrian massacre from extending into the South, for numerically they are but a handful in the centre of a lawless Moslem population.

A petulancy of temper shown by one of these gentlemen of Ram Allah, some two months ago, in pointing a pistol at Corporal Armstrong, who had expressed a decided objection to having a ruler and other articles taken out of his pocket, must be looked upon merely as a fretful dumb-show declaration of the universal idea in this land that might is right. On seeing that might (in the shape of myself and a Zabtíyeh) belonged to the other side, the fellah at once apologised by exclaiming that he was a Christian, and bolting precipitately down the terraces of a steep hill-side, whence he was not recovered till I had raised a hue and cry in his village and chased him for some distance over the vineyards. In the evening, acting purely on his old principle about *le droit de force*, he and all his friends came over to our camp at El Jib to beg pardon, and readily, but with a somewhat wry face, agreed to pay a small fine to the Protestant school in their village. This was, I well knew, a refined punishment, for a fellah would as soon have a tooth drawn as pay a dollar, but the length of the fang is doubled when it has to be paid to one of another sect.

With regard to identification of sites I may say that there is a village (Bet'ain) two and a quarter miles north-west of Nether Beth-horon, and three and three-quarters from the Upper. This may perhaps be that Baalath which is twice mentioned in that neighbourhood, viz., 1 Kings ix. 18 and 2 Chron. viii. 6.

In Joshua xxi. 22 Kibzaim is mentioned also in connection with Beth-horon: the modern Deir Ibzíyeh, which is two and a quarter miles north of Beit 'Ur el Foka, may perhaps represent it. The location, however, of these obscure places can never be more than conjectural.

I have lately come across a book on Palestine ("Das heilige Land," &c., by Rabbi Schwartz, Frankfort-on-the-Maine, S. Kaufmann, 1852) by a Jerusalem rabbi, which is somewhat valuable as giving the geography from a Hebrew point of view, with many Talmudic and rabbinical references. One rendering is quite new to me, and as I am

not at this moment prepared to criticise it, I give it in his own words: "Atroth Beth Joab עֲטְרוֹת בֵּית יוֹאָב" (1 Chron. ii. 54, A.V., Ataroth the house of Joab) ". . . . now the village Al Etron, which is vulgarly corrupted into Latrún. This is Atroth: a quarter of an hour to the north lies Beth Joab, *i.e.* Deir Ayyub." This rendering is ingenious, but I am not disposed to lean too much on the learned rabbi's authority on finding that he identifies the Upper Beth-horon with Huwára (the chalky), a village at the south-east corner of the Jebel Náblus block. Again, we find the Hebrew Ataroth preserved in the name 'Atára, north-west of this place, and, as I have before remarked, the fellaheen always speak of Latrun as *Ratlún*, which is also opposed to the rabbi's argument.

P. S. KUZAH, *June 5th, 1872.*

On the 29th ult. we moved our camp to this place. It is a small village lying about two hours south of Náblus. For the first time we are badly off for water, for with the exception of one or two cisterns, replete with animalculæ, the only supply is from 'Ain Kúzah, a well about a mile distant, and upon which the towns of Huwára and Bayta depend, as well as this village, and at times 'Ain 'Abús. The country is not quite so bad to travel over as that we have just quitted, but still

"These high wild hills and rough uneven ways,
Draw out our miles and make them wearisome."

The summer, too, has now fairly set in, and we may look for a cloudless sky during the next five months. On the hills, however, we generally get a cool sea breeze after 10 a.m., unless it happens to blow from the southwards, then it becomes a *khammasin*, or sirocco. The alternations of temperature by day and night are still great. During the day of the 29th ult. the thermometer stood at a little over 96° in the Observatory, and on the same night was 54° in the same place; this, however, is exceptionally great; 75° and 55° would be much nearer the general average, though yesterday, on coming back to camp at 2.30 p.m., I found the dry bulb 96°, wet bulb 67°, in the Observatory, and the black bulb in vacuo 165° in the sun. To-day at 12.30 they were respectively 100°·5, 66°·2, and 165°, while the minimum ground thermometer, which had been left in the sun unsuspecting of harm, was found to have burst. This heat justifies the pithy though somewhat vulgar expression a fellah used to me, "A gate of hell is open to-day."

C. F. TYRWHITT DRAKE.

The following report of the progress of the Survey has also been received by the Committee, through Mr. Drake:—

CAMP, YAZUR, *17th April, 1872.*

SIR,—During February and March 100 square miles of country were triangulated and detail filled in, which, with that already returned in January, makes a total of 180 square miles.

The detail filled in during the last two months was close—more especially that done in March.

With a trifling exception the whole has been drawn on the fair plan, but it has not been hill-shaded. A complete connection has now been established between Jaffa and Jerusalem, many trigonometrical observations having been made to the principal objects in the latter, so that the 1-2500 scale plan formerly made can be reduced at any convenient time and inserted in its relative position on the one-inch map.

Connections with Captain Wilson's bench marks, on the line of leveling from the Mediterranean to the Dead Sea, have been made in three instances with trigonometrical stations.

I am, Sir, your obedient servant,

THOMAS BLACK, Sergeant R.E.

C. F. T. DRAKE, Esq.

NOTE.—About 40 square miles have been already filled in this month.

ON THE METEOROLOGICAL OBSERVATIONS TAKEN AT NAZARETH, GAZA, BEYROUT, AND OTHER PLACES IN SYRIA.

BY JAMES GLAISHER, ESQ., F.R.S.

IN the accompanying tables, the same arrangement has been followed as in those given in previous reductions at these places, and which is described on pp. 103—105, *Quarterly Statement* No. III, 1869. The observations on which the tables are based are as follows:—Nazareth, 1869 October to 1871 March; Beyrout, from 1870 February to 1871 April, and 1870 October to 1871 April; Gaza from 1869 October to February; Jaffa, from 1869 November to 1870 February (no observations, however, taken during 1870 December); and at Ramleh, Beyt Nuba, and El Jib, for short periods during 1871 December—1872 March. At Nazareth no barometric observations were taken, and both at this place and at Beyrout the observer at times was compelled to cease observing, owing to the exigencies of the public service. With regard to the last three places above mentioned, the results are deduced for the period during which the camp was at each place; at Ramleh, however, the observations during 1871 December are divided into two groups, owing to the camp having been blown down on the 13th. The first of these groups, therefore, refers to observations taken at the camp, 230 feet above sea level, and the second to those taken at the Russian Hospice, 270 feet above the sea.

ATMOSPHERIC PRESSURE.

Gaza.—The highest reading of the barometer was 30·630in. in Nov. 1869, and the lowest 29·348in. in March 1870. The monthly range of reading was small, and varied from about six-tenths of an inch in the winter months, to little less than two-tenths of an inch in the summer

months. The mean monthly values are also smaller in summer than in winter, and varied from 30·157in. and 30·171in. in October and November 1869, to 29·521in. and 29·547in. in July and August 1870.

Beyrout.—The highest reading was 30·230in. in February 1871, and the least 29·277in. in March 1870. The range is greater than at Gaza, but not to any extent.

Jaffa.—The readings show but very small variations in the three months, the ranges being small, and the mean values 28·8in. nearly in each instance.

TEMPERATURE.

Highest Temperatures by day.—At Nazareth, 99°·1 was recorded in October 1869. The two succeeding months in the year show a rapid decrease in temperature, the values being 89°·8 and 85°·8 respectively. while in the same months in 1870, 83°·0 and 72°·0 were registered. The value in January 1870 was 78°·9. In February, March, and April, 1870, the highest temperatures were all less than 90°, but in May a sudden increase to 104° occurred, followed by a decrease to 92½° in June, which was again followed by an increase to 101° in July. The values for the next two months were both in excess of 90°, and those for October and November above 80°, but for December 1870 and January 1871 they were 72°·0 and 67°·6 respectively.

At Gaza, instead of a uniform decrease in the four months ending January 1870, there was a higher temperature (93°·0) in November 1869 than in the other months, and the lowest (83½°) occurred in December. Increasing temperatures were then recorded, and the maximum for 1870 (107°·5) was reached in May. In June, a decrease to 88°·0 occurred, followed by an increase to 93° in August, but afterwards the values generally decreased to 79°·0 in January 1871.

At Beyrout the highest temperature was 81°·0 in March 1870, and the lowest 67°·0 in February 1871 (it is to be noted that there were no observations at this place from May to September 1870); while at Jaffa the highest was 85°·0 in November 1869, and the lowest 78°·0 in January 1870.

Thus for the whole period the maximum occurred in May 1870, and was 107°·5 at Gaza, and 104°·4 at Nazareth (unfortunately there were no observations at Beyrout during this month).

Lowest Temperatures at night.—At Nazareth in October 1869 the minimum was 55°·5; the values then decreased to 36°·5 in February 1870; but in March, 39°·6 was recorded, and 35°·8 in April. The temperatures then increased to 64°·4 in August, followed by a decrease to 33°·0 in February 1871.

At Gaza, in 1870, the minimum (39°·0) occurred in February and April, and 36°·0 was registered in February 1871. In June, July, and August, 1870, the values were all in excess of 60°·0, in September and October above 50°, and in November and December of the same year, between 40° and 50°.

At Beyrout, $46^{\circ}0$ and $45^{\circ}0$ were recorded in February and April 1870, and $43^{\circ}0$ in February 1871. At Jaffa, in January and February 1870, the lowest values were $36^{\circ}0$ and 35° respectively.

Thus for the whole period the minimum occurred in February 1871 and was $36^{\circ}0$ at Gaza, $43^{\circ}0$ at Beyrout, $33^{\circ}0$ at Nazareth, and $35^{\circ}0$ at Jaffa.

Monthly Range of Temperature.—At Nazareth the range was between 40° and 50° in each month, from 1869 October to 1870 March, with the exception of January 1870, when it was but 36° . In April and May it was $49^{\circ}6$ and $51^{\circ}6$ respectively; but from June to November of the same year less than 40° . In 1870 December and 1871 January respectively, it was as small as $25^{\circ}7$ and $28^{\circ}7$, increasing again to 40° in February and March of the same year.

At Gaza the ranges varied (from October 1869 to February 1870) between $31^{\circ}0$ and $49^{\circ}0$. In April the range was $62^{\circ}0$, and in May $56^{\circ}0$. From June to the end of the year the variations were but small, and averaged about 33° . At Beyrout much smaller ranges were experienced than at the two above-mentioned places, in the four winter months ending 1871 the average value being but 15° .

Mean Temperature.—At Nazareth the coldest month in 1870 was January, with a mean temperature of $56^{\circ}6$; and in 1871, February, with $51^{\circ}5$. April 1870 was $1^{\circ}8$ colder than March of the same year, but the means for the next two months (May and June) were nearly 80° , and those for July and August slightly in excess of that value. Those for September 1870 to January 1871 varied from $76^{\circ}9$ in the former month to $55^{\circ}4$ in the latter. At Gaza the coldest month was February in both 1870 and 1871, the mean values being $58^{\circ}3$ and $55^{\circ}4$ respectively. The means show a gradual decrease from October 1869 to February 1870; then, with the exception of April and June 1870, they increase to $80^{\circ}9$ in August, which was the absolute maximum for 1870. From September 1870 to February 1871 a rapid decrease occurred. At Beyrout and Jaffa also the coldest month was February 1871, with mean temperatures of $54^{\circ}8$ and $59^{\circ}6$ respectively.

DIRECTION OF THE WIND.

At Nazareth the north wind averaged about eight days in the months May to October 1870, and varied from two to seven days in the remainder, while at Gaza its least prevalence was five days in April 1870, and from May 1870 to February 1871 it averaged fifteen days. The winter months of 1870—1 show a much greater prevalence of this wind than those of 1869—70. At Beyrout its general continuance was but small in December 1870, but one day only.

The east wind shows its greatest continuance at Nazareth during the winter months. In November 1870 it lasted eighteen days. No air blew from this quarter in August 1870, and for only one day in July and two days in September of the same year. At Gaza its prevalence was remarkably small throughout the whole period: in February 1870

it continued for six days; but in June it was entirely absent, and generally in the remaining months it averaged but one or two days. At Beyrout likewise its continuance was but small.

At Nazareth, south directions were less in their prevalence than either of the others. The general average was about four days, but less in the summer and more in the winter months. At Gaza the last two months of 1869, and the first five of 1870, were remarkable for the undue prevalence of this wind; in December 1869 it continued for twenty days, and from ten to fifteen days in each of the others. From June 1870 to February 1871 its continuance was very small, being entirely absent in July, and averaging but three days for the remainder. At Beyrout the general average was about eleven days. The west wind shows its greatest continuance at Nazareth during the summer months, averaging about sixteen days. In February and November 1870 it prevailed but for four days. It was less prevalent at Gaza, but shows the same excess in the summer, but averaging about thirteen days. At Beyrout its continuance was smaller still. At this place likewise calm days prevailed greatly at times, in December 1870 for thirteen days, and in April 1871 for ten days.

RAINFALL.

Number of Days.—At Nazareth the rainless months were May to September 1870. It fell on eleven and twelve days respectively in December 1869 and January 1870, followed by only three days in February, and then again by ten and thirteen in March and April. From November 1870 to March 1871 an increase is shown from two days in the former to seventeen days in the latter month.

At Gaza no rain fell in October 1869, and in February, May, June, July, August, September, and November, 1870. In the remaining months in the latter part of 1869 and early part of 1870, it averaged about four days, but from December 1870 to February 1870 its prevalence was greater; in the latter month falling on twelve days.

Beyrout shows a greater number of days, in the spring months varying from twelve to nineteen. At Jaffa it rained on very few days.

Amount Collected.—The rainless months at each station have been given above. At Nazareth the greatest fall from October 1869 to April 1870 was 4·4lin. in March, and the least 0·07in. in October; the remaining months averaging about two inches. 0·38in. fell in November 1870, and 1·6lin., 3·03in., 5·30in., and 8·03in. respectively in December 1870 and January, February, and March, 1871.

The greatest fall at Gaza was 3·12in. in February 1871; the nearest to this being 2·48in. in April 1870, 2·47in. in December 1869, and 2·38in. in October 1870.

The falls at Beyrout were much heavier, and averaged from 11·20in. in March 1871 to 0·59in. in February 1870. In February 1871 7·93in. fell, and 6·76in. in April, 1870. The greatest fall at Jaffa was 4·10in. in January 1870, and the least 0·05in. in February of the same year.

NAME OF STATION AND OBSERVER.	Year and Month.	Height above Sea-level. feet	BAROMETER.				TEMPERATURE OF AIR IN MONTH.						MEAN TEMPERATURE OF			VAPOUR.			WIND.				RAIN.									
			Highest.	Lowest.	Range in Month.	Mean reduced to 32° Fahr.	Highest.	Lowest.	Range.	Mean			Air.	Evaporation.	Dew-point.	Elastic Force.	In a Cubic Foot of Air.		Mean Degree of Humidity.	Mean Weight of a Cubic Foot of Air.	Estimated Strength.	Relative Proportion of			Number of Days it fell.	Amount Collected.						
										in.	in.	in.					deg.	deg.				deg.	deg.	deg.			grs.	grs.	N.	E.	S.	W.
Gaza, Syria. J. Nimmo, Esq.	1869 Oct.	30-250	29-995	0-255	30-157	86-0	55-0	31-0	82-2	62-3	19-9	73-3	76-6	1-2	87	521	0-5	13	2	7	9	0	0-00									
	Nov.	30-630	30-000	0-630	30-171	93-0	49-0	44-0	76-0	56-8	19-2	66-4	66-0	63-4	61-3	54-3	6-0	1-0	83	550	0-7	11	10	8	1-06							
	Dec.	30-104	29-629	0-475	29-937	83-5	45-0	38-5	70-6	50-9	19-7	60-8	60-2	57-3	54-7	4-9	1-1	83	550	0-9	5	2	20	4	2-47							
	1870 Jan.	30-098	29-640	0-452	29-868	86-0	44-0	42-0	69-2	50-9	18-3	60-0	59-8	57-4	55-4	4-8	0-7	85	549	0-9	7	3	15	6	0-43							
	Feb.	30-042	29-607	0-435	29-866	88-0	39-0	49-0	68-0	47-7	20-3	57-8	58-3	55-8	53-5	4-11	4-5	0-9	84	551	0-7	8	6	10	4	0-00						
	Mar.	29-844	29-348	0-496	29-653	95-0	47-5	47-5	73-3	54-8	18-5	64-0	64-5	61-2	58-5	4-01	5-4	1-3	81	522	1-3	9	2	12	8	1-40						
	April	30-049	29-517	0-532	29-802	101-0	39-0	62-0	72-3	52-6	19-7	62-4	62-2	61-3	60-2	5-8	5-9	0-4	95	527	2-0	5	4	11	0	2-48						
	May	29-947	29-563	0-376	29-705	107-5	51-5	56-0	89-9	63-2	26-7	76-6	78-1	71-8	67-4	6-72	7-2	3-2	70	509	0-3	11	5	5	10	0-00						
	June	29-767	29-513	0-254	29-641	88-0	62-0	56-0	83-8	68-8	15-0	76-3	77-1	74-8	73-2	8-18	8-8	1-3	87	508	0-3	15	0	114	0	0-00						
	July	29-612	29-438	0-174	29-621	92-0	67-5	24-5	88-4	73-5	14-9	81-0	80-7	75-0	72-1	7-90	8-5	2-7	75	503	0-5	12	1	018	0	0-00						
	Aug.	29-728	29-433	0-295	29-547	93-0	66-0	27-0	90-0	70-2	19-8	80-1	78-3	77-7	73-5	8-84	9-5	1-7	83	503	0-4	13	1	116	0	0-00						
	Sept.	29-850	29-474	0-376	29-691	91-0	58-5	32-5	87-8	67-4	20-4	77-6	75-9	73-2	73-0	8-14	8-7	1-7	83	508	0-2	18	1	5	6	0-00						
	Oct.	29-854	29-591	0-263	29-771	86-5	55-0	31-5	82-3	60-7	21-6	71-5	71-9	69-6	67-8	7-4	1-1	84	522	0-4	20	1	3	7	2-38							
	Nov.	30-025	29-638	0-387	29-838	92-0	49-5	42-5	81-9	56-1	26-8	68-5	67-6	65-0	62-9	5-75	6-3	1-1	84	522	0-3	15	2	112	0	0-00						
	Dec.	29-997	29-583	0-414	29-828	82-0	46-5	35-5	73-1	51-3	21-8	62-2	61-5	58-9	56-7	4-60	5-1	1-0	81	529	0-5	10	1	218	7	1-91						
	1871 Jan.	30-044	29-637	0-407	29-827	79-0	41-5	37-5	70-2	48-6	21-6	59-9	58-9	55-7	52-8	4-01	4-4	1-2	80	532	0-8	15	4	1	8	2-09						
	Feb.	30-135	29-597	0-538	29-848	80-5	36-0	44-5	66-1	44-9	21-2	55-5	55-4	53-2	51-1	3-77	4-3	0-7	86	536	0-6	18	3	1	6	3-12						

NOTE.—The observations were taken at 9 a.m. and 9 p.m.
 BAROMETER.—The highest reading was 30-630 in. in November 1869; the lowest 29-348 in. in March 1870. The greatest monthly range was 0-630 in. in November 1869, and the least 0-174 in. in July 1870. The mean values are higher in the winter than in the summer months, and ranged from 30-171 in. in November 1869 to 29-521 in. in July 1870.
 TEMPERATURE.—The highest temperature by day ranged from 107-5 in May 1870 to 79-0 in January 1871; and the lowest temperature at night from 67-0 in July 1870 to 36-0 in February 1871. The extreme ranges of temperature were 62-0 in April 1870 and 24-0 in July 1870. The highest mean temperature was 80-9 in August 1870, and the lowest 55-4 in February 1871.
 WIND.—The north wind was the most prevalent, and with but few exceptions predominated above the others in each month; in October 1870 it prevailed for 20 days.
 RAIN.—No rain fell in October 1869, February, May, June, July, August, September, and November 1871; in February 1871 it fell on 12 days to the amount of 3-12 in.

NAME OF STATION AND OBSERVER.	Year and Month.	Height above Sea-level.	BAROMETER.				TEMPERATURE OF AIR IN MONTH.								MEAN TEM- PERATURE OF				VAPOUR.				WIND.					RAIN.	
			Highest.	Lowest.	Range in Month.	Mean reduced to 32° Fahr.	Highest.	Lowest.	Range.	MEAN			Air.	Evaporation.	Dew-point.	Elastic Force.	Mean.	Short of Saturation.	In a Cubic Foot of Air.	Plastic Force.	Mean Degree of Humidity, Saturation=100.	Mean Weight of a Cubic Foot of Air.	Estimated Strength.	Relative Pro- portion of					
										Of all	Of all	Daily Range.												N.	S.	W.	Calm.		
Beyrout, Syria. S. Jackson Eldridge, Esq., Consul-General for Syria. Lat 33° 54' N. Lon. 35° 29' E.	1870	..	30.080	29.515	0.565	29.904	71.0	46.0	25.0	61.1	53.6	7.5	57.4	57.7	53.7	50.1	362	4.0	1.3	76	535	1.1	6	3	9	4	4	in.	
	Feb.	..	29.875	29.277	0.598	29.051	81.0	48.5	32.5	77.2	59.1	18.1	68.6	66.3	63.5	61.3	543	5.9	1.2	84	520	1.2	3	11	2	6	9	12	4.33
	Mar.	..	30.121	29.428	0.693	29.786	80.0	45.0	35.0	65.2	56.0	9.2	60.6	60.9	57.7	54.9	431	4.9	1.1	82	529	1.6	4	2	11	8	5	15	6.76
	April	..	29.939	29.578	0.361	29.792	76.0	60.0	16.0	73.1	65.7	7.4	69.4	69.6	64.8	61.1	536	5.9	2.0	75	520	..	..	..	..	..	..	3	2.96
S. Jackson Eldridge, Esq., Consul-General for Syria. Lat 33° 54' N. Lon. 35° 29' E.	Nov.	..	30.143	29.733	0.410	29.926	74.0	60.0	14.0	79.9	63.2	7.7	67.1	67.3	62.4	58.5	491	5.4	2.0	74	525	..	..	..	..	..	..	4	0.78
	Dec.	..	30.057	29.514	0.543	29.908	69.0	53.0	16.0	65.1	57.8	7.3	61.4	61.4	58.0	55.1	434	4.8	1.3	80	531	0.6	1	4	11	2	13	12	4.59
	1871	..	30.143	29.679	0.464	29.893	68.0	51.5	16.5	62.4	54.7	7.7	58.5	58.4	54.5	51.0	375	4.6	1.3	77	534	..	..	..	..	..	..	15	4.67
	Jan.	..	30.230	29.610	0.620	29.951	67.0	43.0	24.0	58.0	50.6	7.4	54.3	54.8	51.0	47.4	326	3.7	1.1	76	539	1.4	2	3	11	4	8	13	7.93
S. Jackson Eldridge, Esq., Consul-General for Syria. Lat 33° 54' N. Lon. 35° 29' E.	Feb.	..	30.016	29.529	0.487	29.824	73.0	48.0	25.0	61.7	54.2	7.5	57.9	58.3	54.7	51.5	381	4.3	1.2	78	532	..	..	..	..	..	..	19	11.20
	Mar.	..	29.935	29.475	0.460	29.737	78.0	57.0	21.0	68.6	60.4	8.2	64.5	64.8	61.4	58.6	494	5.4	1.4	81	524	1.0	5	4	7	10	5	6	1.30
April	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

NOTE.—From 1870, February to April, observations were taken at 9 a.m. and 10 p.m.; from 1871, October to April, at 9 a.m. and 9 p.m.
 October. The results are deduced from 19 days' observations only, viz. from the 12th to 30th.
 " November. The results are deduced from 23 days' observations, viz. from 3rd to 30th.
 " January. The results are deduced from 27 days' observations, viz., 1st and 2nd, and from 7th to 31st; observer away on public service.
 " March 11th, no observations.

BAROMETER.—Highest reading, 30.230in. in February 1871; lowest reading, 29.277in. in March 1870; greatest monthly range, 0.953in. in April 1870; least, 0.361in. in October 1870. Highest mean value, 29.926in. in November 1870; least 29.051in. in March 1870.
 TEMPERATURE.—The highest temperatures by day ranged from 81° in March 1870, to 67° in February 1871, and the lowest temperatures at night from 60° in October and November 1870, to 43° in February 1871. The extreme ranges of temperature were 35° in April 1870, and 14° in November 1870. The highest mean temperature was 69° in October 1870, and the lowest 54° in February 1871.
 RAIN.—Greatest fall 11.29in. on 19 days in March 1871; least fall 0.59in. on 4 days in February 1870.

NAME OF STATION AND OBSERVER.	Year and Month.	Height above Sea-level.	BAROMETER.				TEMPERATURE OF AIR IN MONTH.								MEAN TEM- PERATURE OF	VAPOUR.				Mean Degree of Humidity, Saturation = 100.	Mean Weight of a Cubic Foot of Air.	Estimated Strength.	WIND.				BAIN.																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			Highest.	Lowest.	Range in Month.	Mean reduced to 32° Fahr.	Range.				Approximate Mean Tem- perature from Max. and Min.					Air.	Evaporation.	Dew-point.	Elastic Force.				In a Cubic Foot of Air.		Short of Saturation.	grs.		grs.	grs.	grs.	Relative Proportion of																																																																																																																																																																																																																																																																																																																																																																																																																																																		
							Highest.	Lowest.	Range.	Mean.	deg.	deg.	deg.	deg.									deg.	deg.							deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.

NOTE.—From 1869 October to 1870 August, observations were taken at 9 a.m. and 3 p.m.; from 1870 September, to 1871 March, at 8.30 a.m. and 4 p.m.
 " 1869 October. The results are deduced from 24 days' observations only, viz., from 1st to 11th, and 19th to 31st.
 " 1870 February. Register of directions of the wind, incomplete.
 " " March. The results are deduced from 29 days' observations.
 " " April. The results are deduced from 28 days' observations.
 " " May. The highest temperatures by day ranged from 104°·4 in May 1870, to 67°·6 in January 1871, and the lowest temperature at night from 64°·4 in August 1870, to 33°·0 in February 1871. The extreme ranges of temperature were 50°·2 in April 1870, and 25°·7 in December 1870. The highest mean temperature was 80°·5 in August 1870, and the lowest 61°·5 in February 1871.
 " " June, July, August, and September, no rain fell. The greatest fall was 8·03 in. on 17 days in March 1872.

CHURCH OF THE KNIGHTS OF ST. JOHN.

IMMEDIATELY to the south of the church of the Holy Sepulchre, and almost in the centre of Jerusalem, there has existed for more than 600 years an open plot of ground, upon which no buildings have been erected. This waste space, now known as the Muristan, was formerly covered by the spacious palace and hospital of the Knights of St. John, but until quite recently the only visible remains were a picturesque gateway, with figures representing the signs of the zodiac, and portions of a church and courtyard; the two latter so covered with foul refuse that few travellers ventured to give them more than a momentary glance.

In 1869, on the occasion of the visit of the Crown Prince of Prussia to the Holy Land, the Sultan made a grant of the eastern half of the Muristan to the Prussian Government, with permission to erect a church or rebuild that of the Knights of St. John. Excavations have since been actively carried on in this ground under the superintendence of Mr. Schick, who has kindly placed copies of the plans which he has made at the disposal of the Palestine Fund, and informed the Secretary of the result of his labours. The annexed plan shows the church of the Knights of St. John and the buildings immediately connected with it.

Nothing of very ancient date has yet been found, but additional excavations are to be made, and a new street is to be opened between David Street and the church of the Holy Sepulchre. During the execution of these works it is to be hoped that some interesting relics of the ancient city may be laid bare.

One of the most valuable of the results which may be expected from Mr. Schick's labours is the determination of the natural features of the ground in the vicinity of the Holy Sepulchre, which have been concealed from view for so many centuries. It is also possible that the excavations may settle the question of the site of the second wall of the ancient city.

An account of the hospital of the Knights of St John will be found in Murray's Handbook to Syria and Palestine, and Captain Warren has given a detailed description of his excavations in the Muristan in the "Recovery of Jerusalem."

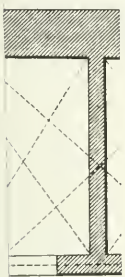
REPORT OF ANNUAL GENERAL MEETING,

HELD AT THE ROYAL INSTITUTION, 17TH JUNE, 1872,

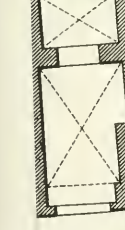
HIS GRACE THE ARCHBISHOP OF YORK IN THE CHAIR.

The CHAIRMAN.—My lords, ladies, and gentlemen, I have to call upon the Reverend Mr. Holland to read the Report, and I must in

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doing so express my regret that Mr. Grove, who has been to so great an extent the bone and sinew of this enterprise, has been detained by other business, and cannot be present with us to-day.

The Rev. F. W. HOLLAND read the Report of the Committee.

"The Report which we have to lay before you this year, although a brief one, will be found to be in most respects highly satisfactory, not only as a report of work already accomplished, but also as a pledge of work to be done hereafter.

It will be remembered that at our last Annual Meeting a resolution was passed to the effect that "the meeting hailed with satisfaction the resolution of the Committee to take immediate steps to complete the Survey of Palestine, and pledged itself to support them in this important work." We rejoice to be able to report that the Survey thus resolved upon has been satisfactorily commenced, and in active progress for the last six months.

The first step in this important work was to find an officer possessed of the necessary experience in surveying, together with the peculiar qualities for survey work in Palestine. Such an officer the Committee found in Captain R. W. Stewart, R.E., of the Ordnance Survey in England. And besides Captain Stewart, the Committee had the good fortune to obtain also the services of Mr. C. F. Tyrwhitt Drake, well known as the fellow-traveller of Professor Palmer during his adventurous journey through the Desert of the Tih. Mr. Drake's services in the Survey will be of great value in his triple capacity of naturalist, archæologist, and Arabic scholar. His experience has been gathered not only from his journey with Professor Palmer, but also in explorations in Northern Syria, the Hauran, and the Anti-Lebanon with Captain Burton, and in Morocco.

The non-commissioned officers selected by Captain Stewart were Sergeant Black and Corporal Armstrong, of the Royal Engineers, both men known to himself, of tried intelligence and great experience. The choice of Captain Stewart has so far proved most fortunate, as the two men up to the present have shown themselves entirely worthy of the confidence placed in them.

The rest of the party is made up of servants hired on the spot. The non-commissioned officers left England in the autumn of last year, and were joined immediately on their arrival at Jaffa by Captain Stewart. After the preliminary unpacking and arranging had been accomplished, the firman granting permission to work was received in Jerusalem, and ground was broken near Ramleh by the careful measurement of a base line. Mr. Drake now joined the party. Most unfortunately, at this point the health of Captain Stewart broke down. After several weeks of severe suffering he was ordered to return at once to England, and came home in the hope that a short stay would enable him to go out again. In this hope he was disappointed, and found himself obliged, two months ago, to send in his resignation, which the Committee were compelled most unwillingly to accept.

Captain Stewart, who is present, will himself read a brief report of his work.

The Committee desire to express their deep sense of the loss to themselves, and the cause generally, from this unforeseen termination of Captain Stewart's engagement, and at the same time their sympathy with the disappointment he has suffered in thus having a work on which he had set his heart snatched from his hands.

It must not, however, be forgotten that the credit of the commencement, and the continuation, according to the directions he laid down himself, up to the present time, is due to Captain Stewart. And it speaks very highly for the careful manner in which the work was planned and started, that no interruption has been caused, the Survey having gone on as well, though not of course so rapidly, as if Captain Stewart were himself on the spot.

On his departure the command of the party was assumed by Mr. Drake, and the thanks of the Committee are due to that gentleman, not only for his ability in carrying on the work, but also for his readiness to assume the sole responsibility of the expedition. What that responsibility involves, travellers in the East can alone understand.

On the resignation of Captain Stewart, the Committee proceeded at once to apply to the War Office for an officer of Royal Engineers to take his place.

They are happy to report that a gentleman has been found, Lieutenant Claude Conder, who appears to be in every respect worthy to succeed the officers who have, before him, worked for the Fund. His arrangements are now entirely completed, and he starts for Palestine this very week. He is, unfortunately, prevented from being with us this day by the multifarious duties which his departure brings upon him.

The Hamath inscriptions, of which mention was made in the last Report, have been photographed and copied.

It is to be hoped that these curious inscriptions may ultimately be deciphered, and yield results of importance to the cause of Biblical investigation.

The work of exploration in Jerusalem has remained suspended since Captain Warren left the city, but the Committee have not forgotten that in Jerusalem lies the most important field of their labours, and that the results which will sooner or later be arrived at there will possess a wider and deeper interest than those obtained in other portions of the Holy Land.

They have found a gentleman whose capacity, attainments, and antecedents appear to fit him eminently for the post of explorer in the Holy City and its neighbourhood; and they trust shortly to be able to make a statement of the plan on which they propose during the next winter to prosecute the investigations so ably carried on by Captain Warren, into new and even more fruitful places.

The Committee have to deplore the loss of three distinguished members of their body. Sir Roderick Murchison, the late illustrious President of

the Royal Geographical Society, at all times took a warm interest in the work of the Fund. Dr. Alexander Keith Johnstone, in the foremost rank among English geographers, was always most active in promoting the interests of the Fund in Edinburgh, and from the commencement of our labours acted as honorary secretary to the Edinburgh Local Association. And, lastly, the Committee learn this morning, with the deepest regret, the death of Dr. Norman Macleod.

The interest which is felt in the work of the Society is shown especially in the circulation of the *Quarterly Statement*, which increases with every issue. The Committee desire that this publication should be looked upon as the best medium for recording important notes of travel or discovery in the Holy Land.

The amount received during the last year from all sources was £2,359 9s. 3d., an income not so large as in preceding years, owing to the partial break in the labours of the Society. The expenditure has been classified as follows:—

Exploration	55·62 per cent.
Returned to subscribers in the form of	
Reports, Lithographs, &c. ..	22·76 „
Management.. .. .	21·62 „

The present position of the Fund appears quite satisfactory. The Survey up to the present time has received a liberal and sufficient support. A large sum has been already received this year, while the Society is, for the first time for three years, out of debt, and has in the banks a balance of nearly £800.

The Survey work, as it proceeds, will perhaps become more expensive, and entail the necessity of sending out more men. The Committee are quite confident that a work so important, so interesting, so necessary, before a right understanding of the geography of Palestine can be arrived at, will not be allowed to stop for want of funds. At the same time, they urge upon their friends to guarantee them to the extent of their power, and so to remove the difficulties and hesitation involved in working in the dark.

Lastly, the thanks of the Committee are especially due to those gentlemen who, by acting as Local Secretaries, are spreading a knowledge of the Society, and collecting funds, and to all those, present here or not, who by subscription or advocacy are advancing our cause.”

The CHAIRMAN.—I now have to call upon Captain Stewart to favour us with his Report, and in calling upon him to come forward, I cannot help expressing, on behalf of this Fund, my regret that one so eminently fitted to carry on this Exploration should be disqualified by illness, and that his return to the Holy Land has been forbidden by his medical advisers.

Captain STEWART, R.E., read the following Report:

“Before I enter into any statement regarding the progress of the Palestine Survey, I feel bound to explain that, owing to severe illness

which befell me very shortly after arrival in Palestine, I was able to do little more than commence the work. Much of the information which I shall lay before you is consequently derived from the reports of others rather than my own experience.

Mr. Drake, who took charge of the work from me, is well known as an accurate and accomplished Eastern traveller; I need not, therefore, do more than mention his name as my authority for the non-professional portion of the work; the non-commissioned officers of the Royal Engineers who were selected by me from the Ordnance Survey of Great Britain, have shown themselves worthy of the confidence trusted in them, and the observations sent home by them, and since worked out, speak in unmistakable language to the care and trouble they have taken and accuracy of the results in the autumn of 1871. The Committee of the Palestine Exploration Society did me the honour of offering me the charge of the Survey of Palestine. This Survey had for some years been contemplated as a fitting sequel to the excavations so successfully carried out in Jerusalem by Captain Warren, and the Survey of Jerusalem made by Captain Wilson and Lieutenant Anderson previously, and it was and is intended that this Survey should embody the results of all these explorers, and be as exhaustive as a scientific investigation can be.

Having accepted the post offered, the first duty which befell me was selecting the necessary outfit, which included camp furniture, our personal equipment, cooking utensils, and such like, for the nature of our work would necessitate living in tents, frequently far from towns of any size, and we must, therefore, depend largely on our own resources. The scientific equipment included surveying, meteorological, and photographic apparatus, presses for preserving botanical specimens, entomological and geological cases, &c. In selecting the scientific instruments, we obtained much assistance from the Government Departments. The Admiralty lent us chronometers, and from the Ordnance Survey Department at Southampton we got excellent and valuable surveying instruments, whilst from the Royal Observatory at Blackheath we obtained instruments with which to take meteorological observations. I mention these facts to show that although this work is for obvious reasons carried out by private enterprise, it still possesses the goodwill of the Government, which also assisted our undertaking by obtaining a firman or official authorisation from the Porte at Constantinople, authorising us to carry out the work, and desiring the Turkish officials to give the needful support and protection.

On the 21st October, 1871, the two non-commissioned officers started from Southampton, in charge of the instruments, stores, &c., whilst I followed a few days later by the Brindisi route, joining them at Alexandria. Here we were delayed a few days, waiting for a steamer to Jaffa, our port for disembarkation. Owing to the kindness of the Peninsula and Oriental Company's officer, we avoided landing our stores at Alexandria, but shipped them direct to the French steamer

for Jaffa, on its arrival from Constantinople. Everywhere during my sojourn in the Levant I found the mere name of belonging to the Palestine Exploration Society was a means of introduction and assurance of assistance. Whether this was owing to the genial qualities shown by my predecessors, or to the intrinsic merit of the Society's works, I am unable to say. At Jaffa our cases, thirty-nine in all, were exempted from paying duty, and were safely stored at the Jerusalem Hotel, which exists in the German colony which has sprung up lately in the outskirts of Jaffa. Amongst these well-conducted and hard-working colonists we stopped for a week, adjusting our instruments, somewhat shaken by the voyage. And then I started for Jerusalem, leaving the non-commissioned officers to complete our preparations for going into camp, also to take observations to fix the latitude of Jaffa, as that was to be our geographical point, to which the rest of the Survey is to be referred. As we were now in the month of November, at the end of a long dry summer, and no rain had fallen, there was literally not a blade of grass to be seen, the hard-baked ground was covered with a crop of ghastly limestones; yet a few weeks later when I travelled the same road, grass was springing up in all directions, and no doubt to travellers who visit Palestine in February or March, the plain country presents a luxuriant and fertile appearance. After calling on our consul and the English residents—but a small community, ten in all, I think—I found our firman had not arrived, so took advantage of the companionship of some other English travellers, and, together, we visited the Dead Sea and Jordan.

Finding on our return to Jerusalem that the firman had not yet arrived, I applied through our consul for a local order from the Pacha, but this he did not feel at liberty to grant, so I determined to commence operations at once and immediately purchased tents and engaged a dragoman to act as interpreter and general manager of our affairs. He was a Jew, by name Maham; for this race cling most tenaciously to the names of their forefathers. Returning to Jaffa we started on the 23rd November for Ramleh, which had been selected as a suitable place to commence the Survey by the measurement of our base line. And now, at the risk of being tedious, I must be allowed to say a few words regarding the principles on which the Survey is carried out: the first and most important duty is that of measuring what is technically called a "base line." As this line must be as nearly level as possible, a plain is the most suitable place for such measurement; this "base line" then becomes the standard of measurement to which all other lines can be referred by a mathematical process called trigonometry. This process is based on a known property of triangles, that if one side and the contained angles of a triangle are known the remaining sides can be calculated. The instruments we had brought with us were for the purpose of measuring those angles. A suitable piece of ground lying between the town of Lydda and Ramleh was found, and the base line measured three times with steel chains we had brought from England

for the purpose, and as the three measurements agreed very well we felt satisfied with the accuracy of the result. We had now a line of about three and a half miles in length fixed. Our next duty was to find suitable elevated positions to connect with the ends of the base line, by which means the country is covered with a net-work of triangles, the angles of which are measured by our theodolite, and our side ascertained by comparison with the base line, from which data the length of the other sides are found, or in other words the distances between these points. You must understand, then, that up to this date Mr. Drake and the surveyors have been engaged going from station to station, a most arduous undertaking in such a country as Palestine, where human life is held so cheap that the surveyors are always obliged to go in pairs and are armed, but I am glad to say no fracas has as yet occurred, and the only difficulty has been caused by the natives pulling down the posts, as they have a superstitious idea that the measurement is merely a preliminary to the sale of their land. So rooted is this feeling that I have been informed that when the telegraph posts between Jaffa and Jerusalem were first erected the natives pulled down and destroyed them, and this was only put a stop to by making the owners of the land on which the posts stood replace them at their own expense. Mr. Drake was obliged to adopt a similar mode of dealing with the Arabs on one occasion. As I was compelled to leave Palestine in January last I am obliged to quote the reports of others as to the present position of the Survey. Sergeant Black reports that 180 square miles of country have been triangulated, and a considerable portion of the detail filled in; the whole has been drawn in plan, and observations, made to connect this Survey of Jerusalem and vicinity with the former, are made by Captain Wilson, so that it will not be necessary to go over this part of the work again, but simply to reduce by scale the existing plans and transfer to our maps; in short, I may say that a tract of country extending from Jaffa on the coast to Jerusalem has been triangulated and laid down in our plan. This I believe to be satisfactory, but I would urge upon this meeting that if the strength of the surveying party were doubled the work would be carried out with double the rapidity, and yet at very small proportionately increased cost. This can be readily understood when you call to mind that the principal cost of the work is the pay of the officers superintending the cost of transit, guards, and such like. Now the cost of these items is the same for a party of two as for four surveyors. Therefore I may conclude by saying that the recovery of Palestine depends upon the British public who support the work, not as in the olden Crusading times by their blood, but by what is as potent in these days—their gold.”

The CHAIRMAN.—My lords, ladies, and gentlemen, I hold in my hand letters from several eminent persons, who have expressed, in different ways, their regret at being unable to be here to-day,—the Rev. Charles Kingsley, the Very Rev. the Dean of Chester, the Lord

Bishop of Winchester, the Lord Bishop of Exeter, and several others. I am very sorry, for my own part, that the duty of presiding to-day has not fallen on the shoulders of some one else, because I have presided at these meetings for several years, and the very little I have to say upon the subject of this Exploration has been said again and again; and besides that, the Committee had cherished the hope that they should have induced a certain illustrious person to be here to-day who has been more than once round the world, and who has the ability to describe most vividly what he has seen. However, we have been disappointed in that hope, and you must, therefore, accept me for a moment. But I rely much upon the strength of those by whom I shall be supported. I shall have the pleasure of calling upon Viscount Ossington, who has done a great deal for biblical study, and also the well-known travellers, Mr. MacGregor and Dr. Mullens; Mr. Beresford Hope has also consented to speak on this occasion, and also Mr. Glaisher, who has surveyed the world *verticalement* more than any one else. I shall have besides the pleasure of calling upon M. Clermont Ganneau, and I shall have a word or two to say about him when he comes forward. Having spoken to you about those who are to follow, I will now say a few words about the business of to-day. About five years ago, a preliminary meeting was held to consider whether it was desirable to establish such a Fund as this or not, and a great many persons eminent in literature and knowledge of this subject met at the Jerusalem Chamber, and seemed to be unanimous in their agreement that whatever we thought about our knowledge of Palestine, the sum total of that knowledge was very small. Speaker after speaker told us, with remarkable unanimity, that about the natural history of Palestine we knew but little; that about its topography we knew but little; and that of its geography we really knew little or nothing. It was felt that at that time the mind of England was a sheet of white paper, as far as Palestine was concerned. But do not let us be unjust to those who have gone before us; there has been a great deal done already, and the writings of men like Robinson will never lose their value; but still, as science advances we become more exact, and there is a great want of exact knowledge even in the parts of the science in which those eminent men did so much. It might be admitted in one sense that this was not our business as Englishmen; and we did hear whispers that this was not our business, and that we might go out with a great deal of money and come back with a very limited result. Whispers of that kind attend every undertaking, whether good or bad—even the best is not free from them; but the answer is, that while in one sense Palestine is not our concern, in another sense it is, because it is the pride and honour of our nation—and this not shared by one sect, school, or party—that it has made the Bible its own book; it has done more than any nation for the knowledge and circulation of the Word of God, not merely for those who speak English, but for those who use all kinds of different dialects,

in all the corners of the world; and having this pride it is but natural that we should feel a wish for this collateral knowledge, and indeed for all those various branches of knowledge by which the Holy Scriptures can be best understood. About the money question I had no fear. It might from the nature of the case be expected that it would be said that our money appears to be wasted or spent for small results. But this country has a great deal of money to spare, and often spends it in foolish ways; and we could not think that for a good object money would be wanting. Now, when we look back upon those five years, we find that a sum of not far from £20,000 has passed through the hands of this Society, and that it has been spent in the manner you have heard upon the various objects of the Fund; fifty-five and a half per cent. of last year's expenditure went towards the expenses of actual Exploration, twenty-one per cent. for expenses at home—I am afraid that is a large amount, but it is not more than is necessary—and about twenty-four per cent. was applied to the production of reports and information which have been put into the hands of the subscribers. Now the interest that is felt in these subjects is manifest, because one result has been the sale of the book called the "Recovery of Jerusalem," in which the work of this Society is fully described; and there has been a large profit on that which in other respects might be considered rather a dry book, showing that this Exploration is felt to be a very interesting subject. Now we met very soon with what is the great obstacle in a work of this kind, because you will remember that as regards Jerusalem it was all work done under ground. I remember that Sir Henry Rawlinson appealed to us on that subject last year, and asked us whether, if we were to dig under the piers of York Minster to seek for a buried city, we thought we should be welcomed by the ecclesiastical authorities. It is obvious that there would be a great jealousy about explorations of this kind. The results are necessarily small. What can you find by digging a shaft to a great depth, and then running a narrow channel, compared with what you can do by surveying an open country from a neighbouring height? What can be done in Jerusalem has been already achieved, and we have now turned our attention to a subject which was not thought of when we began—that is, making a map of the country of Palestine. Again I think I hear you say it is not our business as Englishmen, and that that work might be left to somebody else. Yet there is nothing so useful as a map, and when we get the whole country made out as you see there (referring to a map), and when the different triangles have been worked out, when once you get the bearings of the principal points laid down, you will have a framework into which any discoveries that may be hereafter made by any traveller will be able to be fitted; you will establish a set of categories into which all future discoveries will come, and you will have done a great service to the subject. That leads me to another point: in addition to what this Society has done by its own explorers, we

hoped to raise up a greater interest in the subject; we hoped that not only our own explorers, but others, would be stirred up to look into these matters. And so it has proved. We shall be told that the Moabite stone was not discovered by our explorers, and that is true; but we seek to raise up an interest in the subject, and we seek to have a body of persons to whom anybody who makes a discovery may at once turn to see what the value of it is, and in that way an advantage as great as those gained by our explorers will be achieved. It is not necessary now to speak to you in the language of exhortation. The Palestine Exploration Fund has been before us for five years; it is for the first time out of debt; it has a balance at its bankers; it is doing a positive work of progress, of which you shall know from time to time; and I am sure that we shall not stand still for want of funds, and that the stream of your bounty will not fail. Speaking, not as a traveller, but as one of the home-staying public, I hope this institution will go on and prosper. I believe that accurate knowledge is never to be undervalued, and that the more we know about the Holy Scriptures from collateral sources, the more our belief in them will be confirmed, and that with the help of our investigations many things which when we read the text alone may seem dim and doubtful, will stand out more distinctly, and that the personages and events recorded will seem to live and act before us. I have now the pleasure of calling upon Viscount Ossington to move the first resolution. For myself, I will only add that I heartily wish prosperity to the Palestine Exploration Fund; I believe it did meet a great want, and I believe it will continue to enjoy your confidence and support. (Cheers.).

VISCOUNT OSSINGTON.—My lords, ladies, and gentlemen, I came here to-day to testify my respect to the Right Reverend Prelate who occupies the chair, and also to support by the best means in my power the object which the Committee has in view. The Right Reverend Prelate having called upon me to move the resolution, his request is of course a command, and I desire to execute it in a few brief words. The resolution which I have to propose is a very simple one—"That this meeting pledges itself to carry on the Survey so ably commenced by Captain Stewart and Mr. C. F. Tyrwhitt Drake." That is the present object of the Committee. Now many results may follow from a careful exploration of the country, quitting the usual and beaten tracks. The Jews were a hill-inhabiting people, and I think it is highly probable that the sites of many towns which have great interest for us and are of biblical repute may in this way be discovered. It is very difficult to satisfy ourselves about geographical matters from the descriptions of travellers. I remember a remarkable instance which happened in connection with this very Society not many years ago. You may remember perhaps that there was a careful examination made of Mount Sinai by officers of the Corps of Engineers, and a part of the model made from that survey now stands upon your table. A friend of mine who was engaged in a learned and important work, having read all

the books of travels, and all the accounts he could get, tried to fix upon the probable point upon which the law was delivered on Mount Sinai, and he had, after great pains and trouble, arrived at a certain conclusion. That conclusion was that the real spot was at the south end of the mountain; he thought that the majority of the authorities lay in that direction—always, I must take leave to say, with the exception of a distinguished traveller well-known in the neighbourhood of our Abbey, who now sits at my left hand, and who had himself entertained a different view, which I believe in the opinion of all now turns out to be the correct one. My friend having studied all these books, came to London, and he learnt that this survey made by the Engineers was to be seen. He went to see it. It was no doubt a painful thing for an author having made up his mind, and having expressed a decided opinion, to find that he certainly had been entirely wrong. He went to see that very plan, or one on a larger scale, and satisfied himself that according to the description in the Bible of the plain upon which the Israelites had been encamped, it was impossible that it could have been on the rough uneven ground such as these historians and narrators had fixed upon, on the south extremity of the range; and that, on the contrary, the north extremity possessed every requisite for the encampment of a numerous host; a valley expanding into a wide plain, extending itself from the very root of the mountain. It strikes me that that is a forcible instance of the value of a careful survey made by competent persons. It is now proposed that such a survey should be made of the whole of Palestine. I cannot conceive a more delightful possession than that would be: a good map is always precious—a map of Palestine framed on the scale of the Ordnance Map of England would be a most delightful possession to everyone. With these few words I beg to move the resolution. (Cheers.)

J. MACGREGOR, Esq.—My lord, I think we may safely assume that every school in every Christian country in the world has a map of Palestine, and there are thousands of maps of Palestine in private families, but we are now too sure of the fact that not one of these maps is correct, complete, or sufficiently minute. The resolution which has been moved, and which I have now the pleasure of seconding, pledges this meeting that we shall have a map of Palestine which shall be complete, correct, and sufficiently minute. If we had a complete map—it is a little country, only the size of Wales—we should know these three points about every mountain, town, and river in the country; how far east of London the place is—that is, its longitude; secondly, how far south of London it is—that is, its latitude; and thirdly, how high or low it is above or beneath London—that is, its altitude. Then if we knew these things we could fix many others afterwards that it is necessary to know. Very few persons are aware that our maps, even that one facing you, are very incorrect. I shall only take one verse in illustration of this: “Are not Abana and Pharpar, rivers of Damascus, better than all the waters of Israel?” Now in most of our maps

there is only one of these rivers, instead of two; in some maps they are both shown to run into the sea, though, in fact, there are 2,000 feet of mountain between them and the sea. There is such confusion in the maps about these two rivers that the questions of a little child would make us all ashamed of our ignorance; and after all these thousands of years it is remarkable that even the Jews in London cannot tell you the present names of these rivers. Now, besides being incorrect, our maps are incomplete; a great deal of the observation from which they are prepared having been done by private travellers, whereas it is essential to have the points established by professional men, in order to make sure of the main features. When I was on the Jordan I found there were ten or twelve miles of the map quite uncompleted. There was a great marsh to be mapped, and the question was when you got that, where this little bit was to be put into the real large map of Palestine. When I happened to look through the reeds and strange growth of papyrus, there was one small point of a hill which could be seen by standing up in my canoe, and I found that that identical point had been settled upon by Captain Wilson, who made an astronomical observation of it, and so any private traveller was able thereby to add his quota to the large map. We want to know how high and how low these places are, and to find out whether the "ups and downs" in the Bible are correct; and for this reason, a large slice of it, including the Sea of Galilee, is below the level of the sea; no other such place exists in the world. Therefore when we read in the Scriptures of "going down" to Capernaum, it is not going down as we call it, but actually "going down" 650 feet below the level of the sea. We want to know how high Jerusalem is above this Dead Sea, and so on. You will see one result of this by looking at this plate, and the water I pour into it from this jug. Suppose this is a large tract of country; when water is put into it (and there is salt in the clay), the water would become salt. Then if you suppose this plate a shallow lake, if the lake gets out into the sea, the salt will go away. The water is eating the salt out of the mountains; but if it runs on to this tumbler here, and supposing it is ten times as hot there as it is outside at the present moment, you will have the heat raising up the water in vapour, but the salt remains. Then what would be the result? This water in the plate, the Sea of Galilee, will be always fresh, but *that* below will have salt in it, and it will become brine; and therefore in this Dead Sea we find hundreds of feet of rock-salt. Altitude influences this, and the climate and the fruits. Believing, as I do, that it is most important to have a complete, accurate, and sufficiently minute map of Palestine, I am sure I may do well to second the resolution. (Cheers.)

A. J. BERESFORD-HOPE, Esq., M.P.—My Lord Archbishop, I feel myself much honoured by being called upon to support this resolution. My Lord Ossington and Mr. MacGregor have pointed out to you the importance of the work in which we are engaged—the Survey of Pales-

tine—and also the singular smallness of the country which is to be surveyed. When we consider the enormous, the overwhelming interest that, to all Christian nations of the world, this little land of Palestine possesses, I say it is no less than a disgrace to Christendom if we do not, as Christians, as Englishmen, and as civilised men, make ourselves acquainted with every the least detail of the geography, the archæology, and the history of the land in which the most thrilling and sacred records of the Gospel are centred. When I say this, I feel that I say so in the name of all the civilised and Christian world; but what, my Lord Archbishop, what is the reason why England should especially come forward in this work? You have given one and the highest reason for the obligation, namely, that England has made the Bible her own book. There is also another reason which is not so sacred, but which is still very important. What has been the pride of England?—what has been the boast of England? England's onwardness in everything that shows strength of mind and strength of muscle. England was the first nation that explored the trackless wastes of the Northern Sea; England was the first nation that sent her ships to be crushed and played with among the icebergs in the Polar Ocean; England, if she has not attained the North Pole, has found the North-West Passage; England, or let me say more accurately, Britain, has sent her sons to explore the heart of Africa; and our own England it is which has taken every ice peak of Switzerland as her playground, and gaily planted her foot upon the Matterhorn. Viewing all this, it will be not less than a disgrace to our civilisation, our Christianity, and our common sense, if, after having made enterprise our own in those regions in which discovery simply implies the unveiling of the dumb present, simply the record (geology apart) of an actual condition, widowed of all the stirring illustrations which in old lands come from traditions of past history, we are then found lagging on a spot where discovery is the unlocking of the great treasure-house of the world's supremest chronicles. If we explore the heart of Australia, or the lakes of Africa, and yet leave this little district, a few counties broad, of Palestine, within a few days' steaming from our own country, untracked and undeciphered, it will be a disgrace to us as Englishmen. I repeat that England in her enterprise, in her science, in her literature, in her love for the Bible, in her muscularity, and in her determination to be the great travelling nation of the world, has given pledges from which she cannot retract, that she shall not leave the Holy Land alone and uninvestigated. On these grounds, my Lord Archbishop, I do urge—the door having been opened for us—that we should undertake and prosecute a work like this, which is so comparatively easy to what it was in our fathers' times, and that, now steam and magnetism and the sun and the elements have all sworn together a great oath that science shall no longer be impossible to man, man shall ratify that oath on the sacred soil on which the deepest hopes of his redemption are planted. I call upon this Society, as representing the education, the good feeling,

and the reverence of England, most heartily to support this resolution. (Cheers.)

The Rev. Dr. MULLENS.—My Lord Archbishop, I will support this resolution in a very few words, because I have little claim to the attention of this meeting, especially in the presence of so many travellers in Palestine, never myself having had the opportunity of paying that country a visit. But I have had, my lord, the opportunity of helping forward the work of this Society, in paying a visit to our friends in America. It was through a lecture delivered by my friend Dr. Allon and myself in New York, in the presence of a large number of ministers and laymen, that we were able so to stir the hearts of our friends in that city as to induce them to found a Society for the Exploration of Palestine similar to our own; they started with the understanding that they should survey the country east of the Jordan, and that the work to be done west of that river should still remain to the Exploration Fund in England. We need not surely any additional arguments for carrying out an excellent scheme like this. Those of us who know Palestine by reading the works of successive travellers like Irby, Mangles, and others, can desire nothing more than that all the maps that have come from the work of those travellers shall at least be thoroughly corrected by that which alone can put them on a sound basis, namely, by a careful trigonometrical survey. Those who are acquainted with the trigonometrical survey of our Indian Empire, as well as with the Ordnance Survey of Great Britain and Ireland, will see with what ease, considering the smallness of the country, this important work can be carried on. We have heard from Captain Stewart what able men are available as assistants in carrying out the Survey, and we must all rejoice that the Fund was induced to take this valuable scheme in hand. We must have observed the readiness which even the most scientific and scholarly travellers have exhibited, when they know they are in the district in which particular localities did lie, to prove that these interesting sites are in the districts they have passed over. One of the most noted illustrations of this is to be found in the numerous suggestions that have been made for the site of the Great Fountain of Kadesh, in the Southern Wilderness. We may also take another instance in which Dr. Robinson identifies a great ruin at one place, whereas had he known more about it he would have found that it was two or three miles away in another direction. All these things have been found and laid down for us by Professor Palmer and Mr. Tyrwhitt Drake, and when we see the results of such careful surveys, and what valuable improvements have been made in our maps of the Peninsula of Sinai, I am sure we shall all unite in wishing this enterprise of the Trigonometrical Survey of Palestine God-speed. (Cheers.) I have great pleasure in supporting the resolution.

An amendment was moved by Mr. MOONER, but no seconder being found,

The resolution was put and carried.

Mr. GLAISHER moved the next resolution: My Lord Archbishop, from the first day that an opportunity presented itself to me of obtaining scientific information in that most interesting country of Palestine, I eagerly accepted it; urging upon those who were about to travel in and explore the country, the importance of ascertaining all about its topography, its archæology, and its climate. We knew next to nothing of Palestine five years ago, but we did read in the Bible that it was a land of corn, oil, and honey, producing almost everything needed by man; and we were led by inference to conclude that it has a climate of a most extraordinary character, indeed that it must be a land of many climates to produce so many things.' The first thing I did, therefore, was to urge upon my friend Mr. Grove to send out instruments, which I obtained and furnished him with myself, to be used to ascertain the character of the climate of Palestine as a matter of science, a subject of which we were in utter ignorance, and which was one of no mean importance. Now, I am able to state that I hold in my hand here a paper which I have prepared, to appear in full in the Quarterly Report of the Palestine Exploration Fund,* upon the observations which have already been made. In this paper I confine myself to the meteorology of the country, and it will be found that it exhibits some remarkable characteristics. The temperature rises to 104 deg. in May; and the meeting will be able to judge of what this means when I say that to-day it is 84 deg. with us, and that it was 86 deg. yesterday. And then not only is the temperature as I have stated it in the month of May, but when we come to June, July, August, and September, it exceeds ours by many degrees; and when I look at the characteristics of a climate which day by day averages nearly 90 deg., I wonder how it has been found possible to work out this survey as a whole. I have been myself a trigonometrical surveyor on the Ordnance Survey of Ireland, and I am astonished how a diagram like that presented to us could have been completed. I may be permitted to say that a base line such as that, implies that three or four miles of country have been measured with the utmost accuracy, and everything depends upon it. If that line is correct, every other line will practically be so too. I have looked carefully into this diagram, and I see that Captain Stewart has completed a series of triangulations on one side—coming round here also on the other—and so deduced a verification of it. I have examined and checked the diagram, which can scarcely speak to others, as it does to me, of Capt. Stewart's judgment and knowledge in carrying out this survey. (Hear, hear.) I have already said that there must be many climates distinct from each other in a country like Palestine. There is not a drop of rain for several months together; but in January, February, and March more than half the days of the month are rain—eight inches of rain in one place, eleven inches in another, and elsewhere not more than two or three. It is a climate without many clouds. Professor Tyndall

* See p. 92.

has often told us in this room how the water in the atmosphere prevents the heat from burning up everything; and we know now what comfort we feel when there is a cloud before the sun, and how useful clouds are at night to prevent radiation; but in Palestine there is this burning heat by day, and to work under those circumstances is something exceedingly difficult. I would impress upon our Committee not to urge too much upon the gentlemen who are sent out there, particularly in these months. Of course we are thankful for everything they do; but it is important that they should not expose themselves to needless risks, and we should take care not to exact from them more than can reasonably be expected. As the time is getting on, I will not trespass upon you longer. I shall place this paper in the hands of the Secretary, with a view of its appearing in the next Quarterly Report. The motion I have to propose is, "That it is desirable to provide means to secure an accurate record of all archaeological discoveries that may be made in the progress of the Survey"—we have already had the Moabite stone, and I would urge the importance of taking steps by which records of an archaeological nature may be preserved, "and also of examining as far as possible the physical phenomena and natural history of the country." This will of course include geology and meteorology, to which I have devoted a great part of my life, and I would urge upon every one connected with this Society to increase our means of knowledge by enabling the Committee to continue their observations. I have great pleasure in moving the resolution which I have read to the meeting. (Cheers.)

The CHAIRMAN.—It is now my great pleasure to introduce to you M. Clermont Ganneau, and I only regret that he will have to address you in a language less familiar to us than our own. M. Ganneau's name is already known to us in connection with the deciphering of the inscription on the Moabite stone, and as a great authority in Semitic scholarship; indeed, his word is law on such subjects. I have persuaded the Very Reverend the Dean of Westminster to address the meeting after M. Ganneau, and from him we shall be glad to hear some remarks upon that gentleman's address. (Cheers.)

M. CLERMONT GANNEAU*.—There is certainly no other country which offers attractions to one who loves to investigate the past, similar, or equal, to those of Palestine. Not only have we the detailed narratives and the topography of the Bible, but also a long continued chain of descriptions from the earliest ages of Christianity to the present day. We have, besides these, a perfectly marvellous fixity of local traditions among the native populations, especially as regards the nomenclature. These populations represent the ancient races of these countries. We may find among the fellahen, descendants not only of the Hebrews, but also of those tribes which, conquered by the Hebrews, have yet lived on in the country, and have resisted all the numerous waves of invasion which passed over Palestine. Among these are to be found traditions, oblite-

* M. Ganneau addressed the meeting in French.

rated, indeed, and reduced to childish stories and popular legends, which yet, if carefully and intelligently collected, would throw light upon the history, the religion, and geography of the Hebrews. Modern *savants*, following the example of Robinson, have already had recourse to this mode of obtaining information for the identification of places. At the same time, the greatest care must be taken not to be misled, as has already happened in many instances, by fallacious resemblances. A profound knowledge of Arabic dialects, as well as of Hebrew, is indispensable before undertaking what is really the most delicate manipulation. And great philological experience is so much the more necessary to one who interrogates fellaheen, that there are many facts of the highest importance, philologically speaking, in the idiom itself of the fellaheen. We call this Arabic; it contains, in reality, a vast quantity of forms and archaic phrases which carry us back far away, and to an epoch when the Arabs had not as yet conquered the land of Canaan.

Permit me here to quote, in order to show how important popular tradition may be, when properly employed, certain observations which I have myself made. Let me first mention the "Stone of Bohan." This, as you know, is mentioned in the book of Joshua as one of the points marking the frontier line between the tribes of Judah and Benjamin. It is nothing more than the "Stone of the Thumb," and is called now the "Stone of the Finger"—"*Hadjar el Asbah*."*

There is also the Stone of Zohelath, which I have found in the village of Siloam, under the identical name Zehweile. This identifies En-Rogel with the "Fountain of the Virgin."

Bethesda is nothing more than the present Church of St. Anne, where an old tradition has placed the house of the mother of Mary, calling it *Beit hanna*, "House of Anne." Now this expression is exactly identical with *Bethesda*, both signifying *House of Mercy* or *Compassion*.

I could cite several other important places whose sites I have discovered principally by means of these popular indications; for example, the long-sought Adullam, which is called at present Edoulmiyeh; Azekah, now called Azhik; the royal Canaanite city of Gezer, found by me more than a year ago in the Tell el Djezir, near the little village of *Abou Shusheh*, which Mr. Drake, to whom I communicated my theory, has since visited.

If Palestine is abundantly provided with historical documents and popular traditions, it is singularly destitute of archaeological treasures. In spite of the number of travellers who have visited its soil, in spite of the excavations which have sounded its depths and furnished the solution of topographical problems, we must acknowledge an almost absolute want of inscribed monuments, the land of the Jew furnishing in this respect a strange contrast to Egypt, Greece, Rome, and even Phœnicia. Not even in the tombs, which in other countries furnish us with a pale but exact reflection of the living world, do we find an inscription. This *lacuna* ought to be filled up. Some isolated but significant discoveries have recently come to light, showing that we must not despair of finding in Biblical

* See *Quarterly Statement*, April, 1871. New Series, p. 105.

countries original documents of the greatest importance. It will suffice to remind you of the Moabite stone, which is undoubtedly a grand fact in the history of archæological discovery. This monument gives us at once the most ancient known example of its alphabet, and, so to speak, *an original page of the Bible*. And I may mention here that, side by side with the famous passage containing the name of Jehovah, or Jahveh, the sacred tetragram of the Jews, I have deciphered, since my first publication, a new passage where mention is made of the *Ariel* of David, taken by King Mesha at Ataroth, and dragged by him before the face of Chemosh at Kerioth.

I have had the good fortune to discover another monument, which, although it does not go back so far as the stone of Mesha, is not the less one of the most interesting and venerable Jewish monuments yet found. I speak of a stone of the temple, bearing a Greek inscription which prohibits the Gentiles under pain of death to enter the sacred precincts. An exact reproduction has been made of it, and now hangs before you. This precious monument was buried in the foundations of an Arab edifice some metres distant from the Mosque of Omar, that is to say, close to its original place. Two letters only were visible above ground. Attracted by their palæographic appearance, I began to dig, and was happy enough to uncover the whole block. The translation, with a few remarks of my own, has been already published in the *Athenæum*, and by the Committee of the Palestine Exploration Fund. It is remarkable from many points of view. It reproduces certain expressions actually used by Josephus, who teaches us that the balustrade round the temple was surmounted at regular intervals by pillars having inscriptions in Greek and Latin forbidding strangers to enter. It throws light on one of the principal events in the life of St. Paul, threatened with death on the charge of having polluted the sanctuary by introducing a Gentile. It is the only authentic relic yet discovered of the temple itself. It has been a witness to the preaching of Jesus, and besides all this, it may, in the hands of *savants*, be made an instrument of investigation in clearing up the obscure question of the temples of Solomon and of Herod. The block on which the inscription is engraved is, in fact, by its dimensions, by the manner in which it has been wrought and cut, a specimen of Herodian work. It may thus serve to help us to distinguish between the work of Solomon and that of Herod. And it may further serve as an excellent *point de départ* for the construction of a palæographic scale for classing chronologically the Greek inscriptions of Jerusalem.

I will add that I have a conviction that we shall certainly find more such inscriptions in Jerusalem, whether in Greek or Latin, of the same period. Up to the present the texts found in Palestine and Jerusalem have been few in number and of small importance. Those in Greek and Latin have been published by Mr. Waddington. They amount in all only to *ten*; and all that have been found in Jerusalem are contained in a single page of the Count de Vogüé's great work. Researches undertaken under conditions by no means favourable, and in the rare occasions of leisure left

me by my official duties, have enabled me to collect, besides the texts already mentioned, upwards of eighty unpublished inscriptions in Hebrew, Greek, and Latin. Such a result, obtained with insufficient means, enables me to hope that much more may be done if we are provided with the necessary resources for a more complete investigation.

Among these inscriptions there are some of great palæographic and historical value. Among others I will cite two Hebrew texts in Phœnician character discovered by me at Siloam, and given to the British Museum, where they will soon be deposited. Two Hebrew *cachets* in Phœnician characters give the Biblical names of Ananias, Azarias, and Achbor. These four texts belong to the time of the kings of Judah. There are also several inscriptions in square Hebrew, two of which are bi-lingual, Greek and Hebrew; a weight in stone with a Greek inscription dated from the reign of a king new to history; a votive inscription of some great Roman lady named Pompeia Lucilia, engraved upon a slab of marble found on the side of Bethesda; two inscriptions of the Roman legion named Fretensis, one of those legions engaged in Titus's siege of Jerusalem.

In the vast quarries which extend under Jerusalem, and are now called the Royal Caverns, I found cut in the rock by some workman an exceedingly old and curious *graffito*. The original now lies on the table before you. It is a mere design, but represents exactly one of those Assyrian animals, winged lions or bulls with human heads. It is the more curious inasmuch as the Hebrew cherubim have been by some, not without appearance of reason, identified with those fantastic monsters.

A rapid *résumé* such as this is at least sufficient to show that the soil of Palestine, systematically examined, will break the long silence which it has hitherto preserved, and we may hope to see the disappearance of that strange anomaly of a total absence of inscriptions close to the very cradle of that most glorious of human creations, alphabetical writing. To find these buried treasures it is not necessary to search in the regions beyond the Jordan, where excavations will for a long time be extremely costly and dangerous. Without going so far, it is at Jerusalem itself, or in its environs, that we must seek in order to find contemporary annals of the kingdoms of Judah and Israel. That we shall do so I am sure, provided we attack certain points previously determined on by careful considerations of history.

Jerusalem itself, although it belongs to that category of cities so ungrateful to archæology, because they live a continuous life, and therefore, so to speak, slowly devour themselves, is far from being exhausted. A large number of topographical questions are still in suspense, some of capital importance, such as the site of the Tombs of the Kings of Judah, and waiting for a solution. Let us hope that the solution of these problems will be effected through the agency of this Society—a fitting crown to their noble work.

The Very Reverend the DEAN OF WESTMINSTER.—In the very tropical state of this atmosphere, approaching almost that of the

Valley of the Jordan, I will not detain you long. I am in the novel situation of dragoman of the dragoman of the French Embassy in Constantinople. I take it for granted that most of you have been able to follow M. Ganneau's most interesting paper, but I will just run through the main points which he has touched upon, showing the opportunities that are opened to us by this Exploration Fund, and showing also the great services that an intelligent resident in Palestine like M. Ganneau is able to render to our objects, and which we the more value, because being a foreigner, and not being specially connected with us, we feel bound to acknowledge the honourable manner in which he has behaved with regard to the antiquities he has told you of, and especially with regard to the Moabite stone. (Hear, hear.) It is a lamentable circumstance that rivalry between nations should have penetrated into the Holy Land, but it is very gratifying that, in this instance, foreign nations feel, like us, the importance of the subject, and that, like us, they are above those petty disputes. (Hear, hear.) One of the points upon which M. Ganneau chiefly dwelt, as opening themselves more and more to our investigations, is what has always struck me, namely, the remains of the ancient primæval inhabitants of the country before the occupation of the Holy Land by the Israelites. This is the more interesting because it may possibly be more easy to find from their hands monuments of a more primæval country, such as we find at Stonehenge and Avebury, and other remains of works executed before the Norman conquest in this country. M. Ganneau mentioned various monuments which reach back to those times, but which were, perhaps, turned to new purposes by the Israelites. Nothing is more interesting or more likely to be discovered than those ancient and venerable stones which have existed in Palestine from remote ages; and it was with extreme delight that I heard M. Ganneau say that he believed he had discovered two such relics as the stone of Bohan and the stone of Zohemoth. It is impossible to read the mention of these in the books of Joshua and Kings, and not wish to lay our hands upon them; and if M. Ganneau has done so, I congratulate him with all my heart. (Hear, hear.) His great knowledge of the subject, the fact of his living on the spot, and his familiarity with Arabic, has enabled him to identify with more certainty than had been done before, the names of different places mentioned in Scripture. Amongst these is Scopus, "the look-out place" mentioned in the Maccabees, and which he has found by its identity with the modern name which means "the Observatory." Then again that place known as Adullam, which is so interesting to politicians in England. I remember speaking to a distinguished fellow-countryman of M. Ganneau, M. Montalembert, and he was complaining that in his own country, where the Bible is not so well known as it is in England, no one could guess what could be meant by the "Adullamites;" it was even thought to be a company of some kind. Now that the actual place bearing the name of Adullam can be identified by

M. Ganneau, I should hope that all his countrymen will for the future know as much as we do about all its meanings, historical, geographical, and political. There is also Gezer, that old city which M. Ganneau has found out, and I am glad to learn that he made this discovery of Gezer so long ago as last July. Others have come upon his track since; but it was well known to M. Ganneau long before, when he mentioned it to my friend Mr. Grove, who, I may say, has begged me to explain, what I am sure you all regret, that he is prevented being present to-day to see the results of this Fund, to which he with so much zeal and energy has contributed. (Cheers.) What M. Ganneau has said about the Tombs always struck me. To whom these innumerable ancient tombs belonged to we do not know now; but we may be able in them to find traces of the history of Palestine which have not yet been discovered. Then, with regard to inscriptions, we come to the Moabite stone. I need not enlarge upon that. It is what M. Ganneau says, it is like finding an original page of the Bible itself. There is no reason why the actual inscriptions on the Moabite stone should not have been incorporated by the authors of the books of Chronicles and Kings. It would then have been in reality, what he now calls it metaphorically, an original page of the Bible. (Hear, hear.) Then he has found an original page of Josephus. Poor Josephus often meets with but very scanty justice, but the inscription from the Herodian Temple does bear out what Josephus describes as having been written on the enclosure of the temple, namely, that any one who came within those rails or palisades, if they penetrated within, would be put to death. The whole of this bears most directly upon that most wonderfully vivid scene which is described in the twenty-second chapter of the Acts. He also tells us what I was not aware of before, that there are inscriptions reaching back to the times of the kings of Judah; and if so, there is no reason why, by greater exploration and research, we should not find many more of such inscriptions. (Hear, hear.) While M. Ganneau's account is extremely interesting as describing what he has done, it is also extremely stimulating to find what can be done by us by such funds as you are able to place at our disposal. (Cheers.) I have expressed to you the regret that I have in Mr. Grove not being present on this occasion. There is another name which I cannot help mentioning, because I am sure there is no one here present who does not regret the loss the country has sustained in the death of Dr. Norman Macleod which we have heard of this morning. Dr. Norman Macleod had expressed in a letter which I hold in my hand, his great desire to be present on this occasion, but owing to medical advice he was prevented coming, and the catastrophe which has deprived the world of his genial and charming presence was the result of that illness. (Hear, hear.) It is now my pleasing duty to ask the meeting to return their thanks to His Grace the Archbishop of York for the unfailing zeal and ability with which he presents himself on these occasions. His Grace

has many avocations, and it is most gratifying to find him again presiding at an institution to which from the first he has given his countenance, and for which we owe him still greater gratitude because he has not been drawn to it, like myself and others, from local interest in the soil of Palestine, but from an abstract love of knowledge which prompts him so far as he can to do anything that can throw light upon the sacred history of the Bible. (Cheers.)

Professor E. H. PALMER.—I rise with great pleasure to second the resolution of thanks to the Archbishop of York. This meeting has been one of the most interesting I have ever had the pleasure of being present at; for although the Palestine Exploration Fund has always had good work to report to the public, yet I doubt whether it has ever been better or more usefully engaged than it is at present. The Survey of Palestine is a work that has long been wanted, and the party that has now gone out is the most suitable for this purpose that could have been chosen. The officers and non-commissioned officers of the Engineers are proverbially well-fitted for their work; but the party now in Palestine have the valuable aid of Mr. Tyrwhitt Drake; and I am pleased to take this opportunity of testifying to his immense value as an explorer, and to his possession of indomitable courage and perseverance—qualities which are essential to an archæologist, but more particularly to the traveller in Palestine. No one but those who have been there can understand the difficulties that constantly beset an explorer's path. Besides guarding against danger to himself, he has to exercise all his ingenuity to counteract the cunning devices of the fellahs to withhold information from him or lead him astray. (Hear, hear.) Under these circumstances, his task is by no means an easy one. Mr. Drake travelled with me for twelve months, and I can assure you that he is well able to overcome these difficulties, and I congratulate the Fund on having so valuable a person to support their labours. (Hear, hear.) Ladies and gentlemen, I will not detain you longer, but will conclude by seconding the motion that we return our cordial thanks to the Right Reverend Prelate in the chair. (Cheers.)

The resolution was carried unanimously.

The CHAIRMAN.—My lords, ladies, and gentlemen, before we separate I desire to thank you for the mode in which you have received me; and I would add one word in order that we should part on good terms with regard to the adverse motion which has been made. If I may return once more to that simple illustration of our friend Mr. MacGregor, I should say that the gentleman who spoke of the importance of attention to moral ruins has treated the funds available in this country as a small fixed quantity, like a glass of water, of which none should go abroad because all of it is wanted at home; but the fact is that the Fund upon which we draw is inexhaustible. Its task is to raise people up to that which is noble and good, and out of that Fund you will elicit something for all the objects and all the charities which the

mover of the amendment has in view. I do believe that the more you ask the people of this country to give, the more they will give, and I am sure that not one of you would have anything to do with this Society if you thought that we were hurting any other philanthropic objects. (Cheers.) I thank you for the reception you have given me, and hope we shall meet again next year. (Loud cheers.)

NOTE ON VASES FOUND AT THE BIRKET ISRAIL.

BY GREVILLE J. CHESTER, B.A.

IN "The Recovery of Jerusalem," p. 479, mention is made of certain vases of massive black ware discovered at Birket Israil and elsewhere, which I there ascribed "with very great hesitation as belonging" to the Græco-Phœnician period, and of which I stated that "considerable doubt exists as to their proper appropriation." I am now able to assert positively that these vases are of early *Arabic* manufacture. Among the vast pottery-strewn mounds of Fostat, Musr-el-Ateekah, or Old Cairo, I found in January in the present year a vast number of broken vessels of the very same description, and immediately associated with lamps and other Arabic pottery. One perfect specimen of conical form, which I have placed in the British Museum, is coated with a glaze of greenish blue identical with that found upon numerous Arabic lamps found in the same mounds, which are formed of the *débris* of the Arabian city of Fostat, and contain antiquities of no other period.

NOTE.—The translation of the Talmud Tract on the Measurements of the Temple, published in the January number of the *Quarterly*, was written by the Rev. Joseph Barclay, D.D., lately of Jerusalem.

LIST OF NAMES EAST OF JORDAN.

The following list of names was collected by Captain Warren during his reconnaissance survey of the country East of Jordan. The Arabic orthography is that of the dragoman who accompanied the party, and the transliteration and interpretation were kindly supplied by Dr. Sandrezcki, of Jerusalem:—

- العواقية Al Āwākīyêh. [عَوَق the bend of a valley.]*
- قصر نواقيس Kaṣr Nawākīs, pl. of *Nākūs*, signifying a board or plank of hard wood, which serves instead of a bell in the Oriental churches.
- الشماساني Ash Shamâsâni, perhaps a derivative from شماس *shammās*, deacon.
- الجرانين Al Jerânin, or dual *jerâneîn* (جَرَانِ jerân, the interior part of a camel or horse's neck), *jarân* (جَرَان), angry. [جَرِين a threshing floor.]
- رجم الرواق Rijm ar Rewâk, the tomb (heap) of the portico.
- تَلِّ الْبِرْكَةِ Tell al Birkch, hill of the reservoir.
- تَلِّ الْكُوِّ Tell al Kaû (perhaps from كَاء v.a. كُوَّ retreat, or from كُوَّ window).
- رجم الشوك Rijm esh Shûk (shok), the heap (tomb) of the thorns.

* The words between square brackets [] are a few suggestions which have occurred to me while passing Dr. Sandrezcki's MS. through the press.—E. H. PALMER.

ضهرة المُتَا Dzahret (Dhahret) al Mukṭâ (the back, ridge, summit of the — (perhaps مَقْتِي servant).

The pronunciation is against a derivative from قَطَعَ مُقْطَعٌ.

جبل عجلون Jebel 'Ajlûn.

وادي (ي) البَيْضَة Wady al Beïdhah (of the egg). [Perhaps بَيْضاً "white (earth)."]

وادي الحمام Wady al Hamâm, Pigeons' valley.

وادي (ي) يجوز Wady Yajûz. Three valleys which meet at the زَرْقَاءُ Zerkâ.

أم حلالفة Umm Ḥalâlâfiyeh. [حَلَّافِيَّة Halâfiyeh, fruitful in the plant, half, "a sort of feathery reed"].

الجبَّابَات Al Jâbâyyabât. [جَبَابَة natural reservoirs of water.]

طلعة العالي (عليّ) Talâât al 'Alî (ṭalât), aspect (face of the high one). [Talât, a small path or gully by which one can ascend a mountain.]

قصارَة تُغْرَة Kasâret Thoghra (kaşâdrah, shortness; kaşâdrah, house, chamber, small portion of). Probably Kaşâdrat ath thoghreh, bend of the neck (between two mountains or valleys).

خربة أم الصَّبَاع (ضَبْع) Khirbet Umm adh Dhabâ (sing.) Dhibââ. The ruin of the mother of [*i.e.* abounding in or frequented by] the Hyena or Hyenas.

رأس الصيرة Râs as Şireh, head of the fold.

الطَبَقَة Aṭ Ṭabakah, stage, story, floor.

ضهرة حمار Dhahret Hemâr (back, ridge, summit of the ass). [This form does not occur in Arabic proper. ظهر would mean a "mountain top," ظهر "a back."]

الروادق Ar Rawâdik? [Perhaps from رَدِغ *radigh*, "a muddy spot." The Dragoman is likely to have been misled by the pronunciation of the Bedawin who pronounce ق as our *ch*, and in some parts as our hard *g*.]

خربة صار (صارّة) Khirbet Sâr (ruin of the صارّة ridge, summit).

الكرسيّ The throne, seat.

أم حنابله Umm Hanâbiṭeh (?). (حَنَابِجْ small ants.) [Perhaps from عُنْبُطَة "compact," ع and ح often interchange in the Bedawi dialect.]

خربة ضابوق (ضبوق) Khirbet Dhâbûk (?).

خربة خلدّه Khirbet Khaldeh, perhaps from خَلَدَ mole.

خربة الصقرة Khirbet as Şakrah, perhaps = of the hawk [also the name of a tribe of Arabs in this neighbourhood, the Beni Şakr].

رجم الغماق Rijm al Ghamâk (?). *Rijm* signifies "a cairn."

رجم الشبها Rijm ash Shibhâ. [شُبُهَان *shubuhân* "wild thyme."]

جربة الصفاويه Khirbet aş Safâwyyeh. [صَفَاء "bare rocks."]

سهل الحما Sahl al Ḥimâ (حِمَاء and حِمِيّ) prohibited, a thing prohibited, hence *territorium* (*arcis*). The plain of the prohibited ground.

رجم جعاصه Rijm Jaââṣah (جَعَسَ *Jās*, merda, stercus).

خربة الحواية Khirbet al Hawâyeh (?). [أَحْوِيَّة "tents of goats' hair."]

رجم عمر ابو المخمائر Rijm Omar Abu 'l Makhâmîr (?).

رجم البحار Rijm al Baḥâr (perhaps *bahḥâr*), the cairn of the mariner (بَحَار regions, gardens, pools).

رجم ابو معاويص Rijm Abu Mâwâidh (?).

- رجم الوابضة Rijm al Wâbidheh (?).
- وادي الصقرة Wad(y) aş Şakrah, vide *suprá*.
- البت Albett (?), separation, one who goes away, vanishes.
- وادي الارنب Wad(y) al arnab, the valley of the hare.
- تل الميسة Tell al Miseh, hill of the (?).
- بلاد اجحار Belâd Ajhâr, the region (tracts) of *Ajhâr* (which may also be translated, of dens).
- بيض احمار Baiḏh Âḥmâr (Himâr), the white tract of Himâr, or the ass.
- وادي الماية Wad(y) al Mâyeh (perhaps مائة of the hundred, or *al ma* (vulg. موية moyeh) of the water.
- رجا الوسط Rijm al Wassat, the cairn of the middle.
- وادي دير عبار Wad(y) Deir Âbâr, valley of the convent of Âbâr (?).
- وادي جحره Wad(y) Jahrah (the valley of the den).
- مكسر Maksar (Makser) a trunk, stem.
- البكرة Albikreh, the Virgin.
- المركب Almarkab, the look out.
- العواتية Alâwâtyeh (?) (العوالي perhaps *alâwâly*) [or عواقيه see the first page of this article].
- طحين Tahîn, meal, flour.
- البحار Aljahâr (perhaps *al Ajhâr*, see above).
- النوبلسية Annawablissiyeh (?).
- وادي الظلامه Wad(y) Adz dzalâmeh, the valley of darkness.
- وادي الدالية Wad(y) ad dâlyeh, valley of the vine (vine-arbour) or water-wheel.
- وادي السير Wad(y) as Sÿr (?), *Seir* = marching, journey, expedition.

كرم أبو شيبان Karm Abu (y) Sheibân, the vineyard (plot) of Abu Sheibân.

مطال السيرة Maṭâl as sÿreh. [Extension of the march.]

شجرة الصراخ Shajret adh dharââ.

واد (ي) الاشتا Wad(y) al âstâ, شتًا a rough place, the head of a valley (*shitâ*, winter?).

قَرْيَعَه مَنْصُورَة Karâiâh Manṣûreh (قَرْيَعَه the best part of a house; the second word is apparently a proper name; it signifies protected).

خربة القصير Khirbet al Kiÿṣr (Kasir). [*Khirbeh*, "ruin," *Koseir*, "a little palace."]

خربة العوالي Khirbet al 'Awâlyeh (perhaps العوالي high tracts of land).

مغارة الدير Maghâret ad deir, the cave of the convent.

خربة نيني Khirbet Ninî.

واد (ي) بلال Wad(y) Balâl (Belâl), valley of moisture.

خربة سعادة Khirbet Sââdeh, ruin of Saâdeh (blessedness, bliss).

تلّ العريمة Tell al ârÿmeh, hillock of the foss or moat.

خربة دُبَّة Khirbet Dubbeh, the ruin of the she-bear.

كنيسة الخضر Kanîset al Khidhr, church of Elias (St. George).

كنيسة صارة Kanîset Ṣârah, the church of the ridge, but probably سارا *sârâ*, the church of Sara.

عين جزير 'Ain Jazîr (is est quem incolæ pagi eligunt, ut vices eorum agat in expensis pro eo, qui a parte Sultani apud eos divertitur); perhaps جَزِير butcher.

ام إرقايس Umm Irqaïs (perhaps from رَقَاص).

جسر خيضر Jiṣr Khaïdhâr, bridge of Khaïdhâr.

- أبو طارق Abû Târik. [The father of (*i.e.* frequented by) "the benighted traveller," but perhaps the proper name of a man.]
- جبل خندق Jeb'l Khandak, The mountain of the foss.
- جبل ام عاوية Jeb'l Umm Aâwyeh, the mountain of the mother of the howling (*i.e.* jackal).
- جبل ام بلاوط Jeb'l Umm Balâût, the mountain abounding in Ballaut (perhaps بَلَوْتُ *Quercus Ballota*).
- واد (ي) النهادي Wâd(y) ân Nahâdy [perhaps plural of نَهْدَاءُ sandheaps].
- بئر السبيل Bîr as Sabil, the well of the road, a *sebil* is a public drinking fountain bequeathed by some pious person.
- واد (ي) الجريعة Wâd(y) al Jariâh, perhaps جُرَيْعَة draught of water.
- واد (ي) الرمل Wâd(y) ar Raml, the valley of sand.
- نَعْرَة السُّجُور Thoghret as sujûr (sajûr), the neck of heating, of fuel, or of water filling (the river).
- طَلْعَة رِيْمَة Talâat Rîmeh the face, aspect (perhaps appearing), [طَلْعَة mountain path or gully] of the sepulchre (*Rîm*), or رِيْم the white doe.
- عَرَقُوب الْخِلَال Arkûb al Khilâl, mountain path, or summit of the interstice [fissure].
- عين جريعة Aîn Jariâh, v. *supra*.
- واد (ي) العظام Wâd(y) al 'Idzâm, of the bones.
- تَبْعَة السُّوَيْمَة Tabâat as Suwaïmeh (what belongs—whether men or country—to Suwaïmeh).
- السُّوَيْمَة As Suwaïmeh. [سَوَام *sawâm*, cattle going to pasture.]
- التَّوَامِين At Toâmîn (perhaps *Toâmeîn*, the twins).

دالّ Dalâl (*dallal*, broker, pedlar, hawker). It might also signify the guide.

شكارة النجار Shakaret an najâr (if *Shukret an nujâr*, it might be translated "redness of the colour.") (*Shakreh*, abundance of milk in the udder; *najjâr*, joiner, carpenter.) [Perhaps from شجار *shijâr*, "wood-work," the *k* being often pronounced *ch*.]

نَقْبُ عَيْنِ جَدْيِ Naqb âin jedy, mountain pass of *Âin Jedy*, i.e. the fountain of the kid.

بلاد السرّ Bilâd as sirr, the region (tracts) of the best part of the middle of the valley.

سوق الطعيمة Sûk at Tâimeh, market of her who is neither (lean) thin nor fat [proper name].

نقب القداد Naqb al Kādâd, mountain pass of the hedge-hog.

خربة المرجة Khirbet al merjeh, ruin of the meadow.

وادي الدرباس Wad(y) ad derbâs, Wady of the lion (or the savage (biting) dog).

وادي المشايدة Wad(y) al Mashâideh (perhaps *mushayyede*, a high edifice or one plastered with gypsum).

وادي حَبَا Wad(y) Ḥabathâ (perhaps *ḥabîtheh*, the serpent with the truncated tail).

وادي أم أدسيس Wad(y) Umm Âdsîs (probably *dasîs* = *dâsûs*, he who explores secretly).

وادي الغاب Wad(y) al Ghâb, of the wood (or cane brake).

بناية صقر Binâyet Saqr, the structure of *Saqr* (as nom. prop. [of an Arab tribe] signifying hawk).

شُوَيْنَةُ الدِّيَابِ Shûweînet ad diyâb, perhaps the granary of the *Dîdb* (nom. prop. [of a branch of the 'Adwân Arabs] signifying wolves).

وادي أفذهيل Wad(y) Âfdheil (nom. prop.).

- جبل السور Jebel as Sûr, the mountain of the wall.
- تَلِّ الْهِلَالِي Tell al Hilâlî (nom. prop. of the *Sheikh Hilâl* دِلَال = new moon).
- وَادِ (ي) جَرِيْعَة Wad(y) Jaryâh, see above.
- وَادِ (ي) الْمَهَافَة Wad(y) al Mahâfeh (may have some connexion with هَيِّف a hot wind, S.W.)
- وَادِ (ي) الْبَحَار Wad(y) al Bahâr.
- وَادِ (ي) نَاعُور and نَاعُور Wad(y) Nâûr, the Wady of the water-wheel.
- وَادِ (ي) أَبُو عَيْنَيْن Wad(y) Abu 'Aïnein, the Wady the father of [i.e. possessing] the two springs.
- وَادِ (ي) السَّيْر Wad(y) as Sir (?).
- وَادِ (ي) إِدْلَيْكُ الْبَقَر Wad(y) Idleik al Baqr (?).
- وَادِ (ي) أَمَلَاكَة Wad(y) Amalakah (?), (*Muallak*, "hung," "dependent").
- وَادِ (ي) الْقَصِير Wad(y) al Kîsir (*Ḳāşir*, short).
- وَادِ (ي) الْجَحَار Wad(y) al Jahar, see above.
- عَرْقُوب سَهْبَا Arkûb Sahbâ, mountain-path (*Sahb*, desert, plain, سَهْبَة deep well), السَّهْبِي nom. *deserti cujusd.*
- وَادِ (ي) عَبْيَان Wad(y) 'Abyân, وَادِ الْقَبْرِ (or) وَاو or Wady al Ḳabr, of the tomb (?).
- وَادِ (ي) حَصَاصَا (ة) Wad(y) Ḥaṣṣâṣâ (has perhaps connected with حَصَّ crocus).
- وَادِ (ي) الْمِيْطْرَضَة Wad(y) al Mîṭirdheh (?), *Mîṭredeh*, high way.
- وَادِ (ي) عُوَيْدَه Wad(y) 'Aweïdhah, nom. prop.
- رُكْبَة الْمَتَخ Rukbet al Matkh (*Mittikkeh*, a shepherd's staff), *Rukbeh*, a knee, also the root of a certain plant.
- بَنِي نَعِيم Bany Nâim.
- وَادِ (ي) النُّوَيْطِي Wad(y) an Nûweity.

خشم المَرَاذَة Khashm al Marâseh, the mouth [outlet] of Marâdheh.

قلعة يَآئِين Kalaat Yââin. The fortress of Yââin.

سَاعَة وإِجْرَابَة Sâat u Ijrâbeh (*sâât*, "hour," *ijrâbeh*, "having scabby camels," etc.), ? v. also *Ijraâbbeh*.

الطعيمة At ṭaîmeh (neither lean nor fat, fem.).

مِيرَاجُ الْحَمِيرَان Mirâj al haîrân (?). مِعْرَاج ascension (especially Mohammed's to heaven) of the astounded one.

وَاد(ي) قَبْرِ أَحْمَد Wad(y) Kabr Amhamed, of the sepulchre of Mohammed or Ahmed (وَاد(ي) الْحَمَار), in valley of Jehâr.

وَاد(ي) سَعِير Wad(y) Sâir (ardent, fiery, fire, flame).

وَاد(ي) الْفَار Wad(y) al Fâr (of the mouse).

قَبْرِ شَيْخ Kabr Sheîkh, Sheîkh's sepulchre.

جَوْرَة الْبَيْض Jôret al Baîdh, ditch of the eggs (also navel, middle of anything) (region).

تَلَّ الْكَفْرَيْن Tell al Kafreîn, the hill of the two villages.

وَاد(ي) الْبُوَيْب Wad(y) al Bûweîb, valley of the small door (gate).

عَيْنُ سُوَيْمَة Āin Sûweîmeh, spring of Suweimeh.

الْبُورَاِضَة Al bûwaridheh (بَارِض the first germs).

شُؤْنَة سُوَيْمَة Shûnet Sûweîmeh, the granary of Suweimeh.

قلعة ام ابو الحُسَيْن Kalaat Umm Abu 'l Husseîn, the castle of the mother of the father of Husseîn. [Probably ابوالحصين the castle frequented by the fox; which animal is called in Arabic the "father of the fortress."]

وَاد(ي) النثوري Wad(y) al Nathûry (*nathûr*, she who bears many children).

- واد(ي) عيافة Wad(y) 'Ayâfeh (iyâfeh) of auguration.
 خربة سُوَيْمَة Khirbet Sûweimeh.
 واد(ي) ابو الحسن Wad(y) Abu 'l Ḥusn (father of beauty).
 [ابو الحصين fox.]
 نُقَيْب الرمل Nuḳaib ar Raml (the small mountain pass of the sand).
 واد(ي) مُشْقَار Wad(y) Mushḳâr (*Mushḳârr*, he whose hair is light-coloured).
 خربة لِسْرَا Khirbet Lisrâ (?).
 خربة الكَفِير Khirbet al Kafir (?).
 خربة القَوْجِيَّة Khirbet al Ḳûjîyeh (*Ḳûj*, a female head ornament).
 خربة المَصْلُوبِيَّة Khirbet al Maṣlûbîyeh (derivative from *Maṣlûb*, crucified), place, ruin of the crucified. [This is a large cairn.]
 جَلُول Jalûl (?).
 ام العَمَد Umm al 'Amad (mother of columns).
 التُرْكَمَانِيَّة Al Turkmâniyeh, the Turkman (tract, etc.).
 مَدِيَّة Madiyyabeh (?).
 تَلّ المَسِيَّاج Tell al Massîâj (?) (*Sîâj*, hedge).
 السَامِك As Sâmik (the high one).
 جَبَل عَتْرُود Jabl 'Atrûd (?).
 زَرْقَاء مَاعِين Zerḳâ Mââin.
 المَوْجِب Al Mûjib, the efficient (also God). [The local pronunciation is *Mojib*, not *Mûjib*; it is not impossible that it may be connected with the name of the country Moab; the letter *j* is occasionally substituted for a semivowel; see Lane's dictionary (letter ج ج).]

شِيحَان Shihân, long (*Sheihân*, jealous, sedulous, long).
[The Biblical Sihon. It is sometimes locally pronounced *Skûhân*, especially by the Beni Hamîdeh.]

أم الرصاص Umm ar raşâş, the mother of lead. [See "Desert of the Exodus," p. 500.]

السَّوَاكَةِ As Sûwâkah (*Suwodk*, with long legs, *spathe* of palm-tree).

زِمْلَةَ الْعَالِيَا (عَلَايَةِ) Zimlât al 'Alâyâ ('Alâyah). *Zimleh*, group of small palm-trees. *Zunleh*, troop; *zemeleh*, family; *âlâyah*, high place.

لُب Lub (heart, marrow, the best part of any thing).

الْعَال Al 'Aâl.

الدَّيْر Al Deir, the convent.

عَيُون مُوسَى 'Uyûn Mûsa, the springs of Moses.

وَادِ (ي) أَبُو النَّمْلِ Wad(y) Abu'n naml, the Wady the father of [frequented by] the ant.

وَادِ (ي) قَرْنِ كَبْشٍ Wad(y) Kar'n Kebsh (ram's horn).

زَهْرَةُ قَرْنِ كَبْشٍ Dhahret Kar'n Kebsh, ridge (summit) of ram's horn.

جَبَل مُشَقَّار Jabl Mushkâr, see above.

قَبْرِ عَبْدِ اللَّهِ Kabr 'Abd Allah, sepulchre of Abdallah.

عَرَبُ الْمَصْلَاحِي Arab Almaşlâhy (?).

رَجْمُ إِصْرَارَةِ Rijm Aşrâreh (Isrâreh) (?).

خَرْبَةُ أُمِّ رُمَّانَةٍ Khirbet Umm Rummanah (mother of pomegranate).

جَبَلُ حَوَارَةِ Jebel Hawâreh (?) (*huwâr*, new-born camel).

تَلُّ الْجُلُول Tell al Jalûl (?).

خَرْبَةُ أُمِّ الْعَمَد Khirbet Umm al 'Amed (mother of columns).

- تَلّ العريش Tell al Ārīsh, mound of the bower, green cottage.
 [Ārīsh is also used in the Bedawī dialect for a "wooden hut" or "hovel"; it corresponds with the עֲרִישׁ of Og king of Bashan, in Deut. iii. 11, translated in our version "bedstead," but probably signifying "sarcophagus."]
- وادي الحَمِيس Wad(y) al Habīs, *Habis*, a horse dedicated to pious uses.
- خربة ام التين Khirbet Umm at Tin, mother of the fig-tree.
- جبل أَحَبَس Jebel Aḥbas, *aḥbas*, superlative of *ḥabs*, a large mountain.
- خربة بَطِيم Khirbet Baṭīm (?).
- جبل الصَوَّانَة Jebel aṣ ṣawwāneh (the mountain of the flint stone).
- خربة ماسوح Khirbet Masūḥ (?).
- خربة العال Khirbet al Āāl (?), see above.
- جبل الـيـدودية Jebel al Yadūdiyeh.
- جبل المنحار Jebel al Minḥār (he who slaughters many camels; liberal, munificent).
- البراك Al Barāk, a kind of water-fowl (white); *Birāk*, a kind of fish. (Probably *El Birak*, "pools.")
- خربة ام الابراك Khirbet Umm al Abrāk (mother of the Barāk).
Birak, "pools," (pl. of بَرَكَة which is the same as بَرَاك).
- خربة بيت زُرّة Khirbet Beit Zurāat (of the house of seed or tillage).
- وادي المَنَحَر Wad(y) al Manḥar, the Wady of the place of slaughter or sacrifice.

خربة ام الحناوش Khirbet Umm al Khanâfish (?) *Khunâfish*, lion.
or *Khunfesâ* (sing. *Khinfs*), beetles.

ام الكندب Umm al Kundub (?). [Probably جندب *Jundub*,
a species of locust. I have before observed that
the Bedwîn east of Jordan pronounce *k, ch*.]

ام الرمان Umm ar rummân (the mother of pomegranates),
see above.

خربة ابو نكلة Khirbet Abu Nukleh (*Nukleh*, migration).

جبل الصبارة Jebel al Dhabâreh, the mountain of firmness or
compactness.

تل البناية Tell al Binâye, the mound of the building.

واد(ي) نعور Wad(y) Nâur.

ام قصير Umm Kişîr (Kaşîr), see above.

ام السماق Umm as sumak (*Summâk*, *Sumach*).

مرج ستثا Marj Setthâ (?) (*setthâ*, meadow).

تل جواية Tell Jûwâye, (?).

سحيرة باعث Sahîret Bâith (*sahîr*, he who has pain in the
bowels; *bâith*, he who sends, gives impulse).

خربة بلاعث Khirbet Balâath (?).

خربة ماعين Khirbet Mâîn.

جبل المعالية Jebel al Mâlâye, (?).

خربة زبود Khirbet Zabûd (?).

خربة نبا Khirbet Nabâ. [=the Biblical *Nebo*.]

خربة المعلاقة Khirbet al Mâlâkah (Milâkah), the ruin of the
thing dependent or adhesive.

طي طي Ti Ti.

جبل ام المدارس Jebel Umm al Madâris (mother of the colleges, schools).

جبل الرجحا Jebel ar Rajhâ (?).

خربة المراض Khirbet al Marṣâṣ (?) (see Umm Rasâs).

خربة ضهرة احمار Khirbet dhahret Aḥmâr (probably ضهرة حِمَار), of the back of an ass.

تل طحين Tell Ṭaḥîn (the mound of the meal or flour).

جبل فغار البصار Jebel Faghâr al Baïdhâr (?).

خربة البناية Khirbet al Benâyah. [The ruin of the building.]

الجواية Al Juwâyah.

السامة As Sâmeḥ, pit, vein (lode).

وادي المصخور Wad(y) al Maṣḥur (?), صحر among other meanings, signifies to be ample, roomy, and also in the XI. conjugation to be of a russet hue.

اليدودة Alyadûdeh (?).

ضهرة جماعة Dhahret Jamââh (the ridge or summit of assembly, assemblage).

خربة دبة الخمان Khirbet Dubbet al Khamân (of the *she-bear* of the elder), *debbéh* also means a vessel, sand, a sandy hill, flat ground.

خربة السوق Khirbet as Sûk (of the market).

تل خمان Tell Khamân, the hill of elder.

خربة الذيدة Khirbet az (probably *dh*) zîzeh (?), *lezizeh* لذيدة agreeable. [I heard it pronounced *zizeh* the full name being *زينة مشاش* *zîzet emshâsh*, *زينة* means "a small hill," and *emshâsh* is Bedawî Arabic for "holes dug in the sand for water," "shallow wells."—E.H.P.]

جَوَايَة Juwâyeḥ.

واد(ي) العماري Wad(y) al Āmâry (?) (n. prop.).

رجم الفهود Rijm al Fahûd (fuhûd), heap of the "cheetars,"
or hunting leopards.

رجم الحواية Rijm al Hawâyeḥ (?), (the cairn of collecting, etc.).

ضهرة جزوع Dhahret Jazââ (*Jazûâ*, impatient, *Juzûâ*, im-
patience).

أم الخنافيش Umm alkhanâfish, see above.

الصواوين Aṣṣawâwîn, flints.

سهلة المحلة Sahlet al Maḥlâ, plain of Maḥlâ.

ارجم سليم (رجم سليم) Arjeim Salim (probably dimin. of
rijm), the little cairn of *Salim*.

هربكة الثماض Harbaket ath thamâdh (?).

مَشْتَيَّ Dhabbet Mashtâ, lizard of winter. مَشْتَا
(winter-quarters مَشْتَا).

خربة برازيم Khirbet Barâzîm (?), the ruin of Barazîm.

الزبارات Azzabârât (?) (*Zabr*, stones). صنوبر *Ṣanawber*,
pine-tree.

ماسوح Mâsûḥ, v. 9, l. 4, from above.

سهل أم قصير Sahl Umm Kişir (Kaşir), see above.

الدلالة Ad dalâleh, the guide.

المقاتين Al Maḳâyyîn (?), *Mukâtalîn* (?).

عراق الحمام Ārâk al Hamâm, the rocks, rocky steep, of the
pigeons.

ثغرة تاسين Thogret Taşîn, neck of Tâsîn (?).

القوسمة Al Kawâssimeḥ.

تُغْرَة أمّ رمضان Thogret Umm Ramaḍân, the defile of the mother of Ramaḍân.

أمّ اصواوِيّة Umm Aṣwâwiyeh.

بَحَار Bahâr (*Behâr* from بَحْرَة low ground, garden, pond, etc.).

مُنْطَار عَمَان Munṭâr 'Amân (?), (نَظَر to be watchman).

عَبْدُون 'Abdûn.

الصَّقْرَة Aṣ Ṣakrah, see above.

عَرَاق عَيْشَة Arâk 'Aisheh, the rocks of 'Aisheh.

وَاد(ي) عُش Wad(y) 'Ush ('Ushsh), the valley of the nest.

رَجَم أمّ الرمام Rajm Umm ar ramâm (رَمَة rotten bones).

تَلّ الشَّمَاْسَانِي Tell esh Shamâsâny, see first page.

خِرْبَة العِرْقَة Khirbet al Mirkah (the ruin of stinking wool).

[مَرْقَاة a ladder.]

رَجَم المَرْقَب Rijm al Marḳab, the cairn of the look-out.

مَشَارِف (مَشَارَف) eminences.

وَاد(ي) الْقَطَار Wad(y) al Kaṭâr (كَيْطَر) rain, drop. قَطَار string of camels.

جَبَل النَوَاصِف Jeb l an Nawâṣif (نَاصِفَة a channel or rock in the middle of a valley; also a plain or field).

زِمْلَة الادعم Zimlet al Âdam, for *Zimleh* see above; *Adam* signifies a horse on whose breast or throat there is a white mark.

خِرْبَة الكَاف Khirbet al Kâf, the ruin of Kâf (?).

خِرْبَة المَنْسِيَة Khirbet al mansiyeh (the ruin of the forgotten one, fem.).

تَزْرَة تُصِين Tezret Tuṣîn (?).

- قلعة النواقيس Kalût an nawâkis (ناقوس board of hard wood,
used instead of a bell).
- واد(ي) الحدادة Wad(y) al Hadlâdeh (*haddadeh* signifies a female
smith or worker in iron, fem.).
- خربة عُرجان Khirbet 'Urjân, the ruin of the lame ones.
- الملفوف Al Malfûf, the involved.
- واد(ي) الحمام Wad(y) al Ḥamâm, the Wady of the dove.
- منبوعة من عبيرة Manbûaà min 'Abhareh (نبع a spring). عبيرة
signifies a fleshy damsel.
- جزيرة Jazîreh, island.
- أم الأشرط Umm al Ashraṭ, mother of the vilest.
- واد(ي) الفصيل Wad(y) al Faṣîl, the Wady of the weaned (camel,
etc.).
- واد(ي) العوجه (اء) Wad(y) al 'Aûjâ, the Wady of the crooked stream.
- واد(ي) المدهدرة Wad(y) al Mudahdahreh (?).
- يسكب في البركة Yaskub fî'l birkeh, "it pours (act. s. neut.) into
the pool." [Apparently a description of the
last mentioned Wady.]
- غور بسان Ghôr Basân. *Ghor*, a hollow, especially the
low ground surrounding the Dead Sea.
- جبل صفص Jebel Safadh (?).
- واد(ي) ماخص Wad(y) Mâḥiṣ (perhaps sparkling).
- واد(ي) الأزرق Wad(y) al Âzraq, the Wady of the blue one.
- واد(ي) اعظام Wad(y) Ââdhâm (?) (عظام bones).
- واد(ي) الخرقه Wad(y) al Khirkeh, the Wady of the rag, or of
the swarm of locusts.
- تل الجلودي Tell al Julûdy, the mound of the skinner.

- خربة النوم Khirbet an Nûm, the ruin of Nûm.
- تل سودة Tell Suwâdeh (*suwâd*, multitude; *sawâd*, blackness).
- واد(ي) الدارس Wad(y) ad dâris, the valley of him who reads, learns.
- يسكب في شعائب Yaskub fi Shâaib, "it pours into the brooks."
- قرية الفحيص Karyet al Fuheis, the village of Fuheis perhaps (a proper name).
- تلال بطانة Telâl Baţâneh (*bitâneh*, secret, middle of a town, region; friend; voracity).
- عين قطف الصهور Āin Kaţaf al Dhuhûr, spring of the Kaţaf (a certain tree) of the summits.
- ماحص Mâhiş, see above.
- واد(ي) الازرق Wad(y) al Âzraq.
- قرية كتة Karyet Kitteh, village Kitteh (كتة greens, كتة inferior kind of cattle, etc.).
- خربة صاطا Khirbet Şâtâ (?).
- نحلة Naḥleh, bee. [*Nakleh*, palm-tree.]
- رِيمُون Reimûn (?).
- سأكبة Sâkibeh, poured out, flowing (fem.).
- تل الحداد Tell al Haddâd, the mound of the blacksmith. [But it is probably a proper name, *cf.* "Hadad the Edomite," 1 Kings xi. 14.]
- تل العاصي Tell al Âaşy, the mound of the rebel.
- خربة قجازه Khirbet Kaĵâzeh (?).
- قرية همّا Karyet Hamtâ (?).
- تل ضبرة الممتال Tell Dhahret al maḳtâl, the hill of the summit of the maḳtal. (مَتَل maḳtal, slaughter.)

- وادي الرميم Wad(y) al Remim, see above.
- وادي الصلاحي Wad(y) as Ṣalâhy, derived from Ṣalâḥ, good condition.
- خربة الفوار Khirbet al Fawâr (*fuwâreh*, scum, froth; *fawwâr*, bubbling, spouting; *fawwâreh*, fountain).
- وادي العلافوي Wad(y) al 'Alâfawy (?),
- جبل ذي Jebel dzi (?).
- جبل ميسرة Jebel Meiṣareh (perhaps ميسرة facility, prosperity).
- مرج العرّضة Merj al 'Ardheh, meadow of the Ardheh (?).
- مرج الصوالحه Merj aṣ Ṣawâliḥeh (from Ṣâliḥ, good).
- خربة مشرافة Khirbet Mashrâfeh, the ruin of Meshrafeh (perhaps "eminence").
- جلعود Jalâûd (derived from جَلَعَدَ prostrate, or جَلَعَدَ hard, strong).
- خربة راجِب Khirbet Râjib (perhaps n. prop. derived from رَجَب = one who is afraid, ashamed, or respectful.) [Probably خربة راقب "the ruin of the observer," cf. *El markab*, see above.]
- خربة علان Khirbet âlân (*ilân*, manifestation).
- جبل أمّ جوده Jebel Umm Jûdeh (mother of goodness).
- تل الرض Tell ar rabdh, *rabadh*, a lair; *riḏdh*, a herd.
- الأعقد Al Ââkad, the knotty.
- هيشة الشمالية Hîshet ash Shamîliyeh (*heish*eh, a tumultuous assembly; *heish*, dirt; *shemal*, left, northern.)
- أبو نصير Abû Nuṣeîr, diminutive of Nasr. [*Abu Nuseir* is the name of an Arab Sheikh in the East of Jordan district.]

- مُوبَاس Mûbâs (?) [Mûbas.]
- رِجْم المَقْتَاه Rijm al Makâtâh (?).
- ضَهْرَة اشْبِيل Dhahret Âshbîl (?) (شِبْل a lion's cub).
- وَاد(ي) الشَّلِيحِي Wad(y) ash Shalcîhy (?).
- ثَغْرَة اُمِّ غَفْرَة Thoghret Umm Ghafreh, the defile of the mother of Ghafreh. (عَفْر young of the ibex (wild goat). Perhaps *ghafreh*, of the hairy (hirsute) one (fem.).
- ضَهْرَة اَصْنَامَة Dhahret Âşnâmeḥ (اَصْنَام صنم idol, pl. اصنام).
- خَرْبَة المَصْطَبَة Khirbet al Maṣṭabeh (*Miṣṭabeh*, a stone bench).
- عَيْن اُمِّ رَبِيع Aîn Umm Rabiâ (spring, or the two spring months).
- خَرْبَة المَزَار Khirbet al Mazâr (the ruin of the Mezar, *i.e.* place which is visited, as for instance, the tomb of a sheikh or santon).
- وَاد(ي) الْجَثَّة Wad(y) al Juththeh, the wady of the corpse.
- وَاد(ي) الْغَزَال Wad(y) al Ghazâl, the valley of the Gazelle.
- المَجْدَل Al Mejdal.
- جَبَل الْعُشَّ Jebel al 'Ushsh (nest).
- جَبَل هُوشَع Jebel Hûshâ (?).
- جَبَل مَيْسَرَة Jebel Meîṣereh, see جَبَل مَيْسَرَة.
- جَرَش Jarash.
- الْعِمَامَة Al âmâmeḥ (imameh), the turban.
- خَرْبَة دَابِين Khirbet Dabin (دَبْن fold).
- خَرْبَة نَجِيب Khirbet Najîb (honourable, generous).
- قَلْعَة السَّلْط Kalât as Şalt, the fortress of.

أُمّ عَمْبَرَة Umm Abharah, see above.

قَرِيعَة Kare'îh (Kari'îh), the best part, portion.

خربة الفحص Khirbet al Faḥṣ (of investigation), but *faḥs* signifies also an inhabited place.

خربة دجاجة Khirbet dajâjeh (of the hen).

بركة العمود Birket al 'Amûd, pool of the column.

الحمود Alhamûd (the praised, praiseworthy).

الرحا Arrahâ, the hand-mill.

شجرة الحلباطي Shajret al Ḥalabâtî (*hulabi'teh*, a hundred or more camels, etc.).

أبو طينة Âbû Tîbneh (father of intelligence).

وادي الحور Wad(y) al Ḥor (bottom, depth). حور white poplar.

اليزيدية Al Yazîdiyyeh (Yazîdiyyeh), the place or country of Yezîdiyyeh.

خنازير Khanâzîr, swine.

الجمعة Aljîâh, the arrival.

الباقعة Al (بَقَّعَة or بَقَاع) bakâa (a wide tract of land).

[A tract of land between two mountains; this answers to our word "valley," *wady* signifying rather a dry watercourse.]

المراميد Almarâmîd (perhaps connected with رَمَاد — رَمَد ashes). (مَرَمَد a place of ashes).

خربة الباشا Khirbet al bâshâ, the Pasha's ruin.

طلوز Talûz (?).

شجرة المؤمن Shejret al Mûmîn, al Mûmin (?).

وَادِ الدَّنَانِيرِ Wad(y) Umm ad denânîr, the Wady abounding in dinârs (a gold coin).

وَادِ الصُّلَحِيِّ Wad(y) aṣ ṣulâihy (perhaps *Suleihy*) derived from صَالِح or صَالِح good.

بَاب صَفُوت Bâb Ṣafût (?), صِفَتْ large, robust, fleshy, victorious.

تَلُّ الرَّشِيدِيَّة Tell ar Rashîdiyyeh, the hill of the Rashîdiyyeh (?).

رَقَّة عِيَالِ عَلِيَا Rakket 'Ayâl 'Alaya (according to the dragoman's pronunciation). رَقَّة is a tract of land along a river, exposed to inundation ; عِيَال household, the people of Alayâ.

عُشُّ غُرَابٍ 'Ush Ghurâb, the ravens-nest.

اطْوِيلُ الْغُرَابِ Âtweîl (according to dragoman's pronunciation) al Ghirbân, I cannot make out the meaning of âtweîl ; ghirbân=ravens.

خِرْبَةُ سَمْرَاءَ Khirbet Samrâ, the brown ruin.

مَيْدَانُ الْعَبْدِ Meïdân al 'Abd, the plain of the servant (slave).

خِرْبَةُ أَنْوَامِهِ Khirbet Anwâimeh, the ruin of Enwâimeh (?).

تَلُّ الْعَلَائِكِ Tell al 'Alâik, the hill of 'Alâik (camels sent to carry corn).

عَقْبَةُ بَيْتِ جَبْرٍ 'Akabet baït Jab'r, the steep descent of baït Jabr'.

خِرْبَةُ الْقَبُونِ Khirbet al Kabûn, the ruin of Kabûn (Kaḩûn ?).

قَنَايَةُ الْمَفْجَرِ Kanâyet al Mafjar. فَنَاقَةٌ a canal ; مَفْجَرٌ a place where water runs down.

خِرْبَةُ أُمِّ غَفِيرٍ Khirbet Umm Ghafir, the ruin of the mother of Ghafir (*i.e.* the protector or escort).

مَقَامُ عَلِيِّ بْنِ طَالِبٍ Makâm Ali 'bn Tâlib, the station of Ali Ibn Tâlib.

- قَلْعَةُ الرَّبْدِ Kalât ar Rabd (perhaps *clif*), the fortress of the cliff.
- قَصْرُ الْيَهُودِ Kaṣr al Yahûd, the castle of the Jew.
- تَلُّ نَصْبِ الْمَطَالِجِ Tell naṣb al Muṭâli'y, the hill of the sign (post) of the observer. [The mound of the stone erected upon the look-outs or beacons.
- مَطَالُ مِجَارِ الزَّيْتِ Maṭâl Mejâr az Zeit. *Mejar* (سِجَار sale), if not *matjar* (مَتَجَر merchandize); *zeit*, olive-oil; but I can make nothing of *maṭâl*.
- وَادٍ مَقُوقِ Wâdy Maḳûḳ (?).
- وَادٍ الْأَبْيَضِ Wâdy 'lâbyadh, the white Wâdy.
- شَجَرَةُ الْأَرَاكَةِ Shajret al Arâkah, a species of prickly tree.
- وَادِ ابْنِ التَّلُولِ (?) Wady Abû 't Tulûl, (father of the hills).
- طَلْعَةُ الزَّرْعَةِ Ṭalât az Zârah. طَلْعَةُ a speech, face [gully]; زَعْرَةُ the meaning of unknown to me. [Perhaps زَعْرُوط (vulgar for زَعْرُور) "hawthorn."]
- طَلْعَةُ التُّرْكِيِّ Ṭalât at Turki, aspect, face [gully] of the Turk.
- وَادِي بَقَرِ Wady Baḳar, the Wady of the cows; *baḳar* is also a proper name.
- وَادِي الْمَصْلَايَةِ Wadi 'l maṣlâyah (?).
- وَادِي أَنْقُورِ الذِّئْبِ Wadi Unḳûri 'l Dîb, The Wady of the pit (hole) of the wolf. *Unḳûr*, a small pit like a dimple.
- وَادِي الْبَقِيلَاتِ Wady 'l Bakilât, the Wady of vegetables (بَقِيلَةٌ).
- خَرْبَةُ الطُّرُونِيِّ Khirbet aṭ ṭurûni. According to Captain Warren, *Oktrûneh*.
- وَادِي الْمُصِيرَةِ Wady 'l Muṣîreh (?).

خِرْبَةُ الْعُوجَاءِ Khirbet al 'Aûjâ, the ruin of El 'Auja (the crooked).

مَطَالُ الذِّئْبِ Maṭâl aḍ Ḍib. (*Diḅ*, a wolf.)

عَيْنُ أَبِي الدَّرَجِ 'Ain Abu 'ddaraj, the spring of the father of the stairs. [*Abu* = "abounding in."]

عَيْنُ أَبِي الْخَفَايرِ 'Ain Abu 'l Hafâir, the spring of the father of the ditches.

طَلْعَةُ قُرْزَلِيَّةٍ Perhaps Ṭaḷât Qurzelîyeh (?).

وَادِي قَرْنِ صَرَّابَةٍ Wadi Qarn Ṣarṭâbeh, the Wady of the horn of Ṣarṭâbeh (?).

نَقِيرُ حُرِّيَّةٍ Naqir Ḥorriyeh, the foss of liberty (?).

سَدُّ حَرِيزٍ Sadd Ḥarîz, the guarded mountain (?).

طَلْعَةُ عَمْرَةَ Ṭaḷât 'Amreh. عَمْرَةٌ any covering of the head; a small pearl. [Proper name, Amorite.]

طَلْعَةُ الْمُصْطَارَةِ Ṭaḷât al Muṣṭâreh. مُصْطَارٌ wine (?).

وَادِي الْقَنَاظِيرِ Wady 'l Qanâṭir, the Wady of the arches.

جَوْقَةُ زَبْلِ Jaûket Zibl, the dung heap.

نَصَبُ الْعَسَلِ Naṣb al 'Aslâ, the sign (post) (statue), perhaps of the عَصْلَاءُ (*asṣla*), the lean (thin) (woman).

بَصْتِ حَضِيرَاكِ الْعِيُوشِ Baṣt Ḥadhirâk al 'Uyûsh. (The transcription of this appears to be faulty).

قَبْرُ الطَّرِقِ Kabr aṭṭurq, the Tomb of the *ṭurk*, perhaps *ṭuruk*, the roads, if not طَارِق *ṭāriq*, the diviner [or benighted traveller].

تَلُّ الْمَنَارَةِ Tell al Menâreh, the hill of the minaret.

القَنَارَةُ Al Qanâṭireh, the arches.

مَعَارَةُ أُمِّ أَبِي الْقُصُوصِ Maghârat Umm Abu 'l Fuṣuṣ, the cave of the father of the gems (or of the cloves of garlic).

ولي عبد القادر Wali Abd al Kâder, the sepulchral monument of
Abd al Kâder.

جلافة Jalâfeh. *Julâf* means mud.

خربة اجاور Khirbet Ajâwer (?).

جبعة Jabâa (?).

بيت اعتاب Baît Ââtâb. *Baît*, house; عَتَبَ step.

صناصين Ṣanâṣîn (?).

جمرين Jamrîn (?).

خربة العروق Khirbet al 'Urûk, the ruin of the roots. According
to Captain Warren it is العَرُوب *al 'arûb*, which
would signify the beloved or loving (wife).

خربة جالة Khirbet Jâleh (?).

باقار Baqâr. بَقَّار *bâkkar*, the owner of (or dealer
in) cattle.

بيت حجار Baît Hijâr (baît
Ḥajjâr), the house of stones, or of the stone-
cutter (*fajâr*, according to Captain Warren);
perhaps *fakhhâr* (فَخَّار), potter.

خربة قُصَيْر Khirbet Kuṣaïr, the ruin of the little castle.

خربة الْحَبِيلَة Khirbet al ḥabaileh (habileh), the ruin of Ha-
beileh, ropes (?).

بيت سقارية (بَيْتُ زَكَرِيَّا) House of Zechariah [?].

أسوقية perhaps شُوَيْقَة Shûwaikēh.

جبل ركنادة Jabl Raknâdeh (?).

جبل الحبون Jabl al Ḥabûn (*Abûn*, according to Captain
Warren).

عَتَبَةُ عَابِدٍ Akabet Aâbid, the steep descent of Aâbid = devotee.

وَادِي خِلَّةِ الْعَصَافِيرِ Wady khillat (khullat al 'Asâfir), Wady of the friend (masc. and fem.), or of the tree (a prickly one), or the desert of the sparrows.

شِعْب دُكْمَاك Shab Dukmâk, the mountain-path of Dukmâk.

ثَغْرَةُ الْقَبْجَانِ Thograt al finjân, the defile of the coffee-cup.

قَاعَةُ الزَّيْتُونَةِ Kâât az zaïtûneh, the plain of the olive-tree.

خِلَّةُ الْعَيْسَاءِ (or خَلْوَةُ), Khillat al 'Aïsch; perhaps the friend (waste or solitude) of the locust (fem.), or of the fawn-coloured camel.—v. No. 67.

رَأْسُ صَلَاحٍ Râs Salâh, the head (summit) of Salâh (goodness or integrity).

رَأْسُ الْمَطْلَعِ Râs al Maṭlâ, the head (top) of the ascent.

بَطْنُ الْمَعْطِي [بطن] Baṭn al Môtî (the belly of the giving) (?). = the bottom of a Wady.]

خَرِبَةُ شَوْاحَةِ Khirbat Shûwâḥah (شَوْحَة Shûḥah, perhaps kite) (?).

ضَبْرَةُ حَسَّانٍ (ضَابِرَة) Dhahrat (Dzharat Ḥasân), the summit or ridge of Ḥasân.

قَرْيَةُ الْكَبُو Karyat Alkabû, the village of Alkabû. [Perhaps "gate."]

وَادِي أَبُو الْبَكَّيْرِ Wady Âbu Bukâir (?).

قَرْيَةُ سَعِيدَةِ Karyat Saïdeh, the village of Saideh.

خَرِبَةُ اللَّوْزِ Khirbat al Lûz, the ruin of the almond (-trees).

قَرْيَةُ صُوبَةِ Karyat Soba. Soba in Arabic means a bitter plant, also a heap, a store, etc.

وَادِ نَحَالِينَ Wādī Nahālīn (?).

عَيْنُ فَارِسِ A'in fāris, the spring of the rider.

ضَهْرَةُ الْبَغْلِ (ضَهْرَةُ الْبَغْلِ) Dzahrāt al Baghl, the back (ridge) of the mule.

ثَغْرَةُ حَمَادِ Thoghrat Ḥamād, perhaps *ḥumād*, the defile of Hamād. [*Ḥamād* in the Bedawī dialect means "gravel covered with flints."]

خِلَّتُ الْمُسْتَعِىِّ probably Khillet al Mustāṣi, the waste, etc., of the rebel.

وَادِ الشَّامِيِّ وَادِى الشَّامِيِّ Wady ash shāmī, the Wady of the Syrian, or perhaps for الشَّامِىِّ the high.

ضَهْرَةُ الْأَعْمَى Dzahrāt al Âktā, the back (ridge) of the maimed one.

مَرَاةُ الْجَامِعِ Marāḥ al Jâmiā (of the mosque). *Marāḥ*, place whence and whither people go in the evening; *Murāḥ*, night-quarters of camels and cattle.

نَبِىِّ دَانِيَالِ (نَبِىِّ دَانِيَالِ) Nabi Dâniâl, the (tomb of the) Prophet Daniel.

وَادِى الْبَجَاةِ Wady el Bajājaleh, the Wady of Bait Jâla (or of the people of Bait Jâla) (?).

خِلَّتُ الصَّنِيعِ Khillat as Ṣaniā, perhaps the waste (solitude) of the صَنِيعِ (industrious), or صَانِعِ (artist).

وَادِ بَيْرِ الصَّلِيبِ (وَادِى بَيْرِ الصَّلِيبِ) Wady bir aṣ Ṣalib, the Wady of the well of the Cross.

أَبُو سُودِ Âbû Sûd, father of blacks (negroes); or of dominion; or perhaps سُودِ (felicity, and nom. prop.); or سُودِ an aromatic plant.

خربة كَبَّار Khirbet Kebbâr (ruin of). Perhaps *kubbâr*, vulg.
for كَبَر (*kabar*) the caper plant, or "the great
man."

CONCLUDING REMARK.—The nomenclature given above is exceedingly doubtful; my remarks are mere suggestions, which may lead to sounder conjectures. Had I been able to take down the names on the spot I might have been more successful, but as the mere interpreter "*nulla possum nescisse*."

JERUSALEM, Nov. 22, 1867.

CHS. SANDREZCKI.

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THE
PALESTINE EXPLORATION FUND.

PREFACE.

It is with great pleasure that the Committee are able to inform Subscribers to the Fund that they have received from Palestine three completely filled in tracings, the first contribution to the new map of the Holy Land. The work has been shown to Captain Stewart, who first commenced the survey, to Captain Wilson, and to others experienced in survey work. All are unanimous in expressing their entire approval. It is a piece of work which reflects the highest credit on the non-commissioned officers, Sergeant Black and Corporal Armstrong, to whom it is mainly due. It must be understood that the work of reducing observations taken in the field is a long and laborious one, and that the three sheets already received represent but a very small amount of the actual portion of country surveyed. The amount now plotted, as Lieutenant Conder informs us, is 560 square miles. He calls attention to the fact that the work has been done by two men only, that what they have done would have been impossible had it not been for the care, assistance, and experience of Mr. Tyrwhitt Drake, to whom our best thanks are due, and that more men are urgently needed.

Having once begun this work, which we are doing not for ourselves or our own generation only, but for all the world and future ages, it must be done thoroughly, and should be done expeditiously. The Committee are quite sure that they may depend upon the exertions of their friends to increase their funds and enable them to give Lieutenant Conder the additional men he asks for. It may be remembered that Captain Stewart was also urgent in his appeal for a larger staff.

The Hamath inscriptions have been attracting the attention

of scholars. The rough illustration accompanying this number shows a proposed reconstruction by the Rev. Dunbar Heath, from a comparison of Captain Burton's tracings and our own photographs, of the inscriptions on three stones. The plate is kindly presented to the Committee by Mr. Heath, and is here given as a possible help to students of these very curious inscriptions. Besides stones at Hamath, there are nine seals in the British Museum thus inscribed, and a half-defaced stone of Aleppo has been found by Mr. Drake inscribed in similar characters.

In the next *Quarterly Statement* the Committee hope to be able to bring before their Subscribers a definite plan with regard to their future work in Jerusalem itself.

The letters of Lieutenant Conder give some account of what is now known as "Shapira's collection." It is a collection of rough figures in pottery, with occasional fragments of inscriptions, masks, broken utensils, and other things. They are said to be brought from Moab. Unfortunately, it is impossible for experts to decide on their authenticity till they can be examined and handled. The sketches sent home by Mr. Tyrwhitt Drake and Lieutenant Conder are lying in the office of the Fund, where they can be seen. Undoubtedly, if they prove to be genuine, they will be very curious and valuable.

THE SURVEY OF PALESTINE.

LETTERS FROM LIEUT. CLAUDE R. CONDER, R.E.

I.

10th July, 1872.

First impressions on arriving in a country so totally unlike any in Europe as is Palestine, must always be more or less interesting.

Two kinds of travellers have given such descriptions, and they are apparently very contradictory. The first kind are enraptured by the scene, and describe in flowing language blue hills, venerable cities, orange groves, and palms. The second, disgusted with everything they meet, talk only of deserted ruins, hovels, parched shapeless hills, dirt, and dust. The truth of the matter is that there is much to be said on both sides of the question. Palestine at present is emphatically a land of promise. The distant scene from a window in Jaffa—long garden, groves, palms, plains covered with vegetation, and distant misty mountains—quite comes up to such expectations as are raised in our infancy by the sketches of Roberts and Bartlett; descending, however, into the details when distance no longer lends enchantment, the promise cannot be said to be well fulfilled. The venerable town proves dusty, noisome, and hot to an insufferable degree, the plains flat and uninteresting, and the hills shapeless and burnt up. The truth is that for distant views Palestine is indeed beautiful, but for stern realities in the foreground it is barren and commonplace to an unusual extent.

Having safely landed through the high waves and the narrow inlet of the dangerous reef at Jaffa, the road lies through the plains to Ramleh by a road once well made but so neglected as to be worn to its very foundation of large stones. The Arab horses, with their rapid walk and easy canter, are now the only means of travelling; the omnibuses and carriages started some few years ago in the days of the American colony at Jaffa being now broken or sold, and the road impracticable.

In the evening we reach Ramleh, which is quite typical of most of the Syrian towns and villages. The first thing which specially strikes the eye in these buildings is their ruinous appearance when seen close. This is due to several causes—first, their colour, which is most peculiar; not white, as in Italy or Alexandria, but simply dust-coloured, as if dust, such as that on an English road, had been scattered over the whole and over every patch of soil in the roads, streets, and country, which is not covered with some sort of vegetation. The second cause is the crumbling and uneven dressing of the limestone of which the

walls are formed. The third, to an English eye, is the want of any relief from difference of colour in the roof or windows, which, with the white flat concrete roofs, is continually characteristic. The last, and perhaps most important cause, is, that as in the ancient times of megalithic structures, so in modern buildings, the inhabitants of Palestine seem to be quite unacquainted with or to have a profound contempt for the right angle; as in the grand Haram enclosure, so in every Syrian house, there is rarely any attempt at squareness. The roofs are at all levels, the walls often not strictly parallel, and little round domes crop up without any attempt at symmetry or proportion. Each house, unlike an Italian or Alexandrine building, has its flat roof surrounded by a parapet wall, which runs along at various levels and always appears to be ruined, in some parts two or three courses wanting. Such, with additions of a few minarets, scattered palms, and cactus straggling in and out of drystone enclosures, is the outside of a city in Palestine. In the distance it presents a compact square mass of building; in the interior, streets paved in parts with small stones and arched over for shade, going up and down by steps, with small shops and covered bazaars.

After leaving Ramleh by starlight, with an occasional view of gleaming eyes from some wild dog or hyena, the mountains are reached just as day begins to dawn. They are certainly disappointing. They are round and shapeless, of stratified limestone with brown bands of burnt herbage visible between; and only when some special effect of light or broad shadow is visible, can they be said to look at all picturesque. In some parts the limestone, usually dark grey, has a purpler tone, and the yellow grass contrasts with it; in others the olives, of a brighter green than those in Europe, with aged boles hollowed and ragged, give a little freshness to the view. When, however, these relieving features are absent, the scene is barren and desolate in the extreme; no human habitation or sign of agriculture is visible, a few partridges and small birds appear now and then, and birds of prey, owls, hawks, kites, and other wild inhabitants of the desert, are seen sailing in amongst the confused succession of round summits separated by deep dry valleys and the road runs up and down as mountain succeeds mountain in wearisome succession; and as you gallop to each eminence in hopes at least to see the distant city of Jerusalem, your view is barred by yet another brown hummock to be traversed with pain and discomfort.

Two coffee-shops are promised us on the way; each is found in a valley by a stagnant muddy well, each equally disappointing, as it consists merely of a semicircle of dry stone wall, some two feet high, with a low roof of boughs supported on a central pole, and half covered with dry brushwood. Here coffee is served by an aged and dirty Arab, and mules and horses crowd, tortured by flies and gnats, round the well.

At length we are told that from the next summit we shall at last see Jerusalem. What, when it proved such an acceptable announcement to us, who had only travelled nine hours, and had fed by the way,

must it have been to the crusaders who, in hunger and thirst, under a burning sun, had struggled through half Europe and all Asia Minor and Syria on foot to reach it? Little can those who most sneer at this "centre of the world" wonder at the tears and cries of the multitude when they at last beheld their goal.

Nothing was more contrary to expectation than the first view; not of a large city walled round, lying spread out below us, but of a few white modern houses, drystone walls, and a large building with several white domes, evidently also quite new; and all this, not in a valley, but on the very top of the last summit ascended. This was modern Jerusalem, the Russian town. We gallop on, and at last on the same long ridge, but sloping down towards a distant valley, we see a long dark grey wall with battlements, and two square towers; minarets and tall cypresses rising behind, and in front of the dark gateway yellow camels in the blazing sun, lying grunting and grumbling in the road. Such is the foreground, but it forms, not as one would be led to expect and believe, the whole scene, but merely the setting of the extreme distance of a long veil of grey mountains—the Moab country. It is not, indeed, till visiting the spot that the traveller appreciates the meaning of the Psalmist's words; for twenty miles he has struggled over mountains, and now he sees on every side to the extreme verge of the horizon still higher hills, and yet finds himself standing on one of these at the gate of Jerusalem.

Captain Burton, in the general remarks prefacing his new work on Syria, speaks with great contempt of the "torpid little town of Jebus;" yet to the traveller fresh to Syria, although well acquainted with the beauties of mountain scenery in Upper Italy, and the rich plains of the South, and not even suffering from "Holy Land on the brain," the first impression is decidedly a striking one.

Let like be compared with like, and not with that which is incommensurate. Compare Jerusalem with Paris or London, compare the Moab chain with Mont Blanc, the result will naturally be unfavourable to scenery which is on a smaller scale; but when, after seeing the shapeless and half-ruined villages near Jaffa, the well-built walls, the fine buildings, the battlements, archways, pillars, palms, and gardens of the capital strike the eye, the effect is certainly superior in beauty to moderate expectations. And again, when the brown hills passed through still meet the eye on the north, the distant range of Moab looks imposing by contrast; and again the truth of the assertion that the charm of Palestine consists in distant scenery is proved.

Another point which in England appeared of great difficulty, now disappears entirely as such. It is evident that Palestine is not a land where architecture has ever reached any great amount of excellence in detail, or richness of style. Hence it is that the apparently homely outline of the ancient Temple, as blocked out from the Talmud description, and the plain character of the remains as yet found, are still not inconsistent with the enthusiastic accounts of Josephus.

Size was to the Jews, whose ordinary buildings were small and insignificant, the only element of grandeur, and in this, indeed, they excelled. The effect of even such small towers as these at the Jaffa Gate is striking; what then must have been that of the lofty piles of Hippicus, Psephinus, and Mariamne, and the great wall of the Haram, of which now but a third of the height is visible?

Beauty of detail and richness of style we should not naturally expect in Palestine, but grandeur in proportion and square massiveness we should look for and do find.

II.

11th July, 1872.

My second day in Jerusalem was spent in the shop of Mr. Shapira, in Christian Street, sketching the pottery alleged to have been recently discovered from Moab and which he has offered to the Palestine Exploration Fund for examination. These are most interesting to Bible and archæological students, and appear to be, in many instances, unique. They are of two kinds of pottery, one bright red and sharply defined in outline and inscription; the other, apparently older, is of greyer colour and less distinctly moulded.

The sketches I send are the only ones which time enabled me to prepare for this mail, but the number as yet uncommunicated by either Mr. Drake or Dr. Chaplin is very large, and these will be forwarded as soon as possible, my time being principally devoted to such drawing for the next few days.

First in interest to the general public is the "Moab Calf." Here, if genuine, we have a relic which may at once take us back to the Mosaic Dispensation, to that mysterious worship which—perhaps first connected with or in imitation of the Egyptian Apis—seems to have had peculiar attraction for the Jews. Hardly had they left Egypt when under Sinai itself they worshipped the golden calf, and later we find that Jeroboam caused Israel to sin by the erection and worship of calf idols in Bethel and Dan. It is a curious, but perhaps impertinent remark, that twelve oxen supported the brazen sea, and that the bull was one of the four beasts or portions of the Cherubim.

To find therefore in Moab, the country where first Israel, issuing from the desert, was led astray, one calf idol and the fragment of a second, would be most interesting, and the rumour that similar relics, but of gold, have been unfortunately already melted down in Damascus, still further excites the curiosity of the student.

The Moab calf is perfect; all but the feet on the right side. It is 22½ in. long, 9 in. broad, and 8½ in. high, or rather less than the dimensions of a new-born ordinary calf. Its ears are chipped, and it has on its

sides scratches which might be conjectured to be the remains of an inscription, but may only be marks of the moulding tool. The head is well-shaped, and the dewlap well executed; the rest is clumsy and rough in the extreme; the hollow in the back may be either for incense or for the reception of offerings, and is of irregular shape. The colour of the pottery is light, and in parts grey; the nostrils are shallowly moulded, and not perforated as in the second or fragmentary head, which is also better moulded and of thinner pottery. No really marked inscription exists on either.

The remaining sketches carry back our thoughts at once to the eleventh chapter of 1st Kings, where it is told us how Solomon erected on Olivet temples to Chemosh, the abomination of Moab; and for Molech, the abomination of the children of Ammon; and for Ashtoreth, the goddess of the Zidonians.*

III.

ON THE EXPLORATION OF JERUSALEM—THE SECOND WALL.

NABLOUS, 18th July, 1872.

Much as has been done in elucidating the topography of Jerusalem by my predecessors, I feel, after a long talk with Herr Konrad Schick, in charge of the excavations in the Muristan, that there will soon be opportunities for still more decisive discoveries on the subject.

These opportunities should not be lost, and I sincerely hope that, as in next November work will be possible here without affecting the health of the party, the Committee of the Palestine Exploration Society will feel justified in supplying men, materials, and money; whilst I would guarantee that the support and assistance necessary for success are to be readily obtained here.

First in interest to us all, comes the vexed question of the Second Wall, including that of the identity of the traditional site of the Holy Sepulchre, with that new tomb in the garden which was nigh at hand to Calvary.

Calvary, as all agree, was without the then existing city wall, which by Josephus is always spoken of as the second wall. If, then, the wall ran east of the present church, the evidence is permissive, though not positive, but if it ran west, the evidence becomes definitely negative as to the authenticity of the site.

The description Josephus gives (*B. J. v. 4*) is bare enough. The wall

* These sketches, together with some by Mr. Tyrwhitt Drake, are lying in the office of the Fund. It is not yet by any means certain that the objects are genuine, but it is hoped that further investigations may confirm the good opinion of them formed both by Mr. Drake and Mr. Conder.

started from the gate Gennath, or, as it has been translated, the garden gate, belonging to the first wall; it encompassed the north quarter of the city, and reached to Antonia. We have, however, another indication of its extent in the same passage; for, supposing the distance of every tower on each of the three walls to be the same, and comparing thus the lengths of the walls, we find that the second wall was two-thirds the length of the first, and four-ninths that of the third, and coupling this with the thirty-three furlongs given as the circumference of the city, the length of the second wall is roughly one English mile.

Of local indications we have but one of any value, at the Damascus Gate, where two ancient towers are found. This, then, must surely be a gateway of the wall in question, for it is too far north to belong to the first wall, and, if the circumference of the city be kept in view, too far south to have been in the third.

From this starting-point, then, we might trace the wall to Antonia on one side, and to the Gennath Gate on the other. The first question, as being of less immediate interest, and also more difficult to solve in accordance with all the different points of evidence, I leave at present untouched. One of two courses, it must, as is generally agreed, have taken; and I shall therefore merely remark that the greater the extent on this side, the less is left to be accounted for; and thus the greater the probability of so tracing the wall as to exclude the church of the Holy Sepulchre.

We come, then, at once to the question of the junction of the first and second wall; and here it is important first to determine the line of the first wall itself.

On this, in the same chapter, Josephus is fortunately more definite in his description. The northern course was from the tower Hippicus, which, with Phasaelus and Mariamne, was placed on this side. Hippicus we also *infer* to have been at the north-west corner of the wall, as from it the course to the west cloister of the temple is described. From this salient point the third wall also started. Phasaelus and Mariamne must then have been east of it; and to them we are told that the King's palace adjoined. The wall hence ran on to the Xystus, the council-house, and the west temple cloister, excluding the lower city which was separated by a valley.

But little difference of opinion exists, therefore, about the course of this wall, which is supposed to lie in the line shown. With regard to its history I have never seen it remarked that it may probably be identical with the wall which Simon and Jonathan, the Asamoneans, first built in the midst of the city, to exclude the market-place from the garrison, which was in the citadel on Acra, which was afterwards levelled (*Ant.* xiii. v. 6).

Of local indications there are very few. On the west, at the Jaffa Gate, stands the citadel of the present town, including the castle of David, a tower the foundations of which are undoubtedly ancient, and agree with the dimensions given by Josephus for Phasaelus. On the east, at

Wilson's arch, it is possible the wall ran close to the vaulted ascent. Between these two points in the same line stands the property of the Society for Converting the Jews; and here, as shown on a larger plan, Captain Warren sought to find, beneath an archway, the Gennath Gate. A second ancient gate exists close by further west, but its date is uncertain, and part of it seems Christian. In the same vicinity an old tower-like cistern exists, and part of an ancient wall below the surface, all pointing to the existence of the wall, probably under the street.

Having thus a tentative east and west line, we require one north and south to fix the position of the Gennath Gate; but it is just here that the difficulty lies. Captain Warren on the east went forty feet deep without finding either the rock or the gate; and Captain Wilson was equally unsuccessful at Kalaat el Jalûd, on the west of the Holy Sepulchre, which Dr. Robinson had taken as a point in his second wall.

The scattered references to the wall in question in Josephus are numerous, but tend, it would seem, rather to trace the wall so as to include the Holy Sepulchre; though the evidence cannot be considered as conclusive.

First we learn (*B. J.* v. 6) that Titus thought to attack at the monument of the High Priest John, as the outer wall was lower, the second wall not joined on, not being completed, and there was an easy passage to the third or inner wall.

A sally from an obscure gate (or postern) at Hippicus was directed against this attack by the Jews, who under Simon fortified the spot near John's monument as far as the gate where the water (probably the aqueduct) came in to the tower Hippicus (*B. J.* v. 7).

Titus, however, took the second wall at the part where the narrow streets led obliquely to it, and prepared to assault the last wall. For this purpose he erected banks at John's monument, and the pool Amygdalon, thirty cubits apart, in the north quarter (a term equivalent, it would seem from another passage, to the lower city). (*B. J.* v. 9, and v. 11.)

The deductions to be made from these passages seem to be as follows:—

1st. The second wall was at its junction, near the tower Hippicus, which is supposed to have been near the Jaffa Gate.

2nd. The postern of the aqueduct at Hippicus may possibly be identified with the Gennath Gate.

3rd. The pool Amygdalon, only mentioned after taking the second wall, must have been within it, close to the monument of John—a conspicuous object, which M. Ganneau boldly identifies with the Holy Sepulchre itself! The pool may, therefore, very well be that of Hezekiah which lies nearly north of the castle of David.

With regard to the opposite view of the subject, I may state that, east of the Holy Sepulchre, there are ruins of what was undoubtedly a tower or building of some sort belonging to the megalithic period, the rock not being here far below the surface; these are, in all probability, *in situ*. Captain Wilson thoroughly explored this.

First it is evident that the aqueduct should be carefully traced in hopes of finding both Hippicus and the Gennath Gate. To this work Herr Schick promises soon to devote himself. Secondly, it is important to descend into the lower part of the castle of David, which has, I understand, never been explored, and for the investigation of which it is hoped the new governor will give facilities. Thirdly, an arch in the moat of the citadel must be opened, and the vaults within searched, and if necessary a short gallery driven towards the south to find, if possible, the first wall.

IV.

THE PROGRESS OF THE SURVEY.

NABLOUS, 18th July, 1872.

Arriving on the 17th at Nablous, my first attention was directed to the examination of what had been done in the survey during the time that Mr. Drake has been in charge. Having before this date been unconnected with the work, I may of course be looked upon as an impartial critic; and on that ground I wish to report at once my impressions on joining.

Palestine has been described as an easy country to survey, the distances being large from one point of extensive view to another, and the amount of detail small. I wish, therefore, to give a short sketch of the practical difficulties of the work.

Our method is to establish a camp from which to extend the survey within a radius of five to seven miles; when this is finished the camp is removed some ten miles further and the same process repeated.

The size of the triangles is therefore limited, not by the distance that can be seen, but, as each point has to be revisited for the sake of connecting it with new ones afterwards erected, by the distance that can be ridden in the day, leaving the requisite amount of time for the observations to be taken.

When it is considered that in some parts no roads exist, that where they do they are used by the natives principally as receptacles for all the stones in the gardens; that all the surface from Jerusalem to Nablous is either covered with small stones or consists of flat limestone slabs worn quite slippery by sun and the feet of the camels; that no shade can be found on the hill-tops; that water is scarce in most parts; and that delicate instruments have to be mounted on mules which are urged as fast as circumstances permit—it will be seen that to construct an accurate map is not by any means an easy task.

For this task but two men have been employed, under the care of Mr. Drake, without whose experience and constant assistance they would have been unable to accomplish what they have done. They have

worked now unceasingly for six months, and the results are successful and satisfactory beyond what could have possibly been expected: in fact, better work could not be desired.

The extent of the Survey at present plotted is 560 square miles. Part of the most difficult country is already passed, and a considerable portion that is easy will be even more rapidly completed.

As regards the triangulation, the checks have been in all cases satisfactory; and lines of thirty miles in length are calculated throughout, which prevent all possibility of slewing. The direction taken will bring us in the shortest possible time to the second base on the plain of Esdraelon, which will still further check the work.

The observations have also been very satisfactory, and agree well with those taken by Captain Warren. Finally, the detail has been all filled in, and the work will be forwarded as soon as possible to England, and can be published at once. The hill shading is not placed on the plan, and as it rather tends to obscure the detail of roads and villages it would be better to add it later. It will, however, be continued in conjunction with the other work.

Perhaps the most satisfactory feature in the work is, however, yet to be mentioned. The amount done in the last quarter has been half as much again in quantity as that done in the first three months, and that in spite of the increased heat of the weather. It is hoped, also, that as the men get more accustomed to the work, to the hard riding, to the habits, language, and appearance of the country; and, further, when the plains and less difficult country are being surveyed, that still greater progress will be made.

I cannot, however, consider this report as complete without urging most strongly that more men be employed. Captain Stewart, I am aware, spoke on this point at the last general meeting; and I do not hesitate to state that, as at present carried on, it cannot be completed in the time expected. Two more men would more than double the rate at which work can be carried on, and it would be desirable to increase the party still further in order to lighten and accelerate the work. It is at present in a precarious state, for the illness of one of the men must necessarily put a stop to it, and although their health has as yet been very good, the risk is very great to run.

I would, therefore, press the committee earnestly to consider the saving in time and expense which the addition of two or three more men would make. They need not be of the rank of Sergeant Black or Corporal Armstrong; as younger men of the corps would, under the guidance of these excellent and experienced workmen, be quite efficient, and could be easily selected at Chatham. They should be men accustomed to filling in of detail, but need not be able to take observations.

My conclusions are, therefore, that considering the party and the country, the work is far more satisfactory than could have been hoped, and indeed for accuracy and detail leaves nothing to be desired; but I

consider that the addition of three more men at least to be sent out to arrive in October at the latest, is of the greatest possible importance.

V.

THE COUNTRY ROUND SAMARIA.

NABLOUS, 23rd July.

The Survey has, during the last quarter, been extended through the hill country of Palestine, until at last from our further points on the north we can see stretched in the distance the plain of Esdraelon, on which our second base is to be measured; with Nazareth, Tabor, and Hermon on the north, and the ridge of Carmel and the white sand cliffs of the Mediterranean stretching away on the north-west and west.

Our present camp is, and will probably for a week or more continue to be, at Nablous, the site of Shechem, the patrimony of Abraham, and the resting-place of Joseph; placed between Ebal and Gerizim, on the very watershed of the country, with hill country on every side, and deep wadys or valleys leading to the Jordan valley and the Mediterranean.

The country from Jerusalem and Hebron on the south, to Esdraelon on the north, presents such constantly recurring features, that a description of that in the Samaritan district will give a correct impression of the whole. Indeed, were it not for the distant views reaching beyond Jordan on the one hand, and to the sea on the other, including long ranges, broad plains, and distant blue ridges, the scenery would present a most monotonous and uninteresting recurrence of round-topped barren hills and deep stony valleys. Palestine is, as I have before remarked, the country of all others where distant effects can best be studied and appreciated.

The geological composition of the hills is a dark grey, sometimes almost purple, limestone, hard and compact, stratified in beds of an average thickness of two, three, to seven feet, and as a rule very nearly horizontal. These are referred by the French geologists to the early miocene or late cretaceous period, and called by them nummulitic.

Beneath this bed lies another, similar to that on the east of Jerusalem, a soft chalky soil containing a portion of alumina; in fact, approaching to a marl. The beds are much thicker, ranging from ten to fifteen feet, and in places beds of equal thickness of a flint conglomerate of dark colour are found, inter-stratified. The dip of this formation varies, but apparently the beds are not conformable with the upper limestone. A good view of the out-crop of a still lower bed is obtained at the head of Wady Farah, an important valley running to the Jordan on the east of Nablous. The chalk here is suddenly replaced by a secondary limestone, the beds contorted with a dip which probably in places exceeds 45°, and stratified in thinner beds of dark colour. The strike can be traced for many miles in a southern direction along the plain east of Nablous;

and a deep water-worn ravine on N.E. of the town has left on its west side a strip of the limestone, which fringes the softer and rounder outline of the chalk hill.

This third formation is a dolomitic or crystalline limestone, marked by narrow torrent beds, with natural caverns. The outline is sharper than that of the nummulitic limestone, which appears, however, to be the main feature in the landscape on the south.

The appearance of the country is what would be naturally expected from such formations. Round stony hills, hemmed in and divided by innumerable valleys, mostly narrow and nearly all dry; down these the winter torrents which first formed them flow to the plains, but in summer the water supply is limited to a few streams and to wells. The horizontal beds give a tame outline to the hills, and their only beauty consists in their colour towards evening or in early morning, when reds, bright browns, and yellows, with bluish and purplish shadows in the deep folds of the hills, give, with the distant dim mountains on the east, a striking though barren scene. Where soil exists not consisting of grey shingle from the rock, it is of a rich reddish colour, and it affords, as Captain Burton remarks, a valuable indication in searching for ruins, as the existence of this virgin soil is a distinct negative proof.

Between the ledges at this time of year (a time most unfavourable to the beauty of the scenery, as flowers and green leaves have long ago been parched, and only burnt grass remains) grow every species of thorny shrub, and plants delighting in dry barren sites. One low dark-brown thorny plant makes itself specially conspicuous, covering the hill-sides in moss-like patches on every side, contrasting forcibly with the yellow-burnt grass and the grey stone. Rock roses (*cisti*), lemon-scented thyme, and thistles also abound; and, like the remainder of the shrubs and plants, are dull grey and brown in colour. The summits are generally flat and covered with stones, often quite bare, and rarely possessing any trees. Lower, patches of maize, of cucumbers, and other vegetables, near the villages, and occasionally tobacco fields, give a greener hue to the hill-side, but in the general view these are lost, and the effect is brown, yellow, and grey.

Descending into the valleys the soil is even stonier, but in Wady Farah there is a stream of fresh water, and beside it dark bushes of juniper and clusters of large oleanders in blossom mark its course like a black broad line in the middle of the valley.

Where the chalk appears, the outlines are softer; and broad white patches and bands run over the mountains. The water has here worn down the hills, and plains of alluvial soil, such as that east of Nablous, result from the softer formation.

Near the villages and up the hillsides the olives give an appearance of greater fertility, though in colour they are grey and dry. Many are of great age, and split into several pieces, which flourish independently. The crop, with the small amount of cultivation it obtains, is biennial. The whole of the groves, to sunset or even after, resound with the extra-

ordinary creaking of the cicala, which sounds sometimes like mule bells, at others as if the whole ground was simmering in the heat.

In the midst of this barren and half-cultivated country the immediate neighbourhood of Nablous presents a marked contrast. Numerous springs and streams run from the weather-beaten scarps of Gerizim and the olive slopes of Ebal, towards the sea. The grey town, with its square houses, its underground streets, its solitary palm-tree, occupies the high valley between the two, and creeps up the side of the former. Around are fig gardens, olive groves, and cultivated plots of herbs, all presenting, as seen in the distance, a green and fertile extent of orchard. Good fruits of every kind, melon, prickly pear, plums, and grapes, abound, and a good harvest is now threshed by the primitive method, used, no doubt, in the time of the Patriarchs.

Such then, are the physical features of the country of Samaria. Of its *fauna* and *flora* but little can at this period of the year be learnt. The flowers are burnt and dead, whilst birds and beasts are alike few and uninteresting. Round the wells, the large herds of black long-eared goats are mixed with small sheep, also long-eared, and out of condition owing to the heat. Over the hills long strings of yellow or white camels, each led by a dark man, in his black kefiyeh, riding a diminutive donkey, are constantly met swinging along. Higher up a pair of gazelles may occasionally be seen bounding over the stones, and once we came across a family of wild pigs. Reptiles, however, enjoy the country and the weather, huge grey lizards scamper about with head and tail well lifted from the ground. Small ones, more resembling earthworms in appearance, also abound, and an occasional large-sized snake is to be met with on the hills.

Song birds seem entirely absent, and of the smaller birds only sparrows and a dark-coloured stonechat appear. In the clefts of the rocks little brown owls are perched, and over the deep wadys the Egyptian vulture is seen circling. Black crows, black kites, and other birds of prey are common; a black-headed jay is also often seen in the olive gardens. A flight of bee-eaters came over our camp this evening, and in the morning we saw a little woodpecker on the hills; these, however, are the only species as yet noticed, and as it is near moulting time it is not a favourable period for collection.

The insects alone remain to be noticed, and of these there is a marked absence of coleoptera, only two or three small beetles having been obtained. On the hills, and sometimes lower down, there are many butterflies, the large yellow swallowtail (*P. podalirius*), and both kinds of the small copper, are the most common; but a bright orange one, and another dark blue or black also, are found. Grasshoppers, the mantis, great yellow spiders, and scorpions, three or four inches long, and light-brown coloured, complete the list. It is remarkable that no *green* insects seem to exist here, but all seem suited to the colour of the country. In southern Italy, where vegetation is fresher and greener, lizards, grasshoppers, and beetles are all often bright green in colour.

Such is the summer aspect of Palestine, at least as far as the hill-country is concerned. Dry and parched, it presents, no doubt, at the present day an appearance very different from that which, with the hills covered with shrubs, with copses, and even with trees; the valleys, watered by fresh streams, bordered with grass and with foliage, it offered to the eyes of the Israelites, to whom, fresh from the barren deserts of Sinai and the rocks of Moab, it must have seemed to be indeed, at least by comparison, a land flowing with milk and honey.

VI.

ROCK INDICATIONS AT JERUSALEM.

CAMP JEBA, *18th August, 1872.*

Having recently had occasion to visit Jerusalem for a week, to arrange stores, &c., Mr. Drake and I have occupied our time in explorations of various parts of the city and neighbourhood, and have been rewarded by the discovery of several points of interest, some of which have not, I imagine, been as yet brought before the public.

Our first object was the examination of the Haram, principally with regard to the tracing of rock on the platform itself, and the examination of the chambers on the south and west of the platform. The general result was an impression that much still remains to be done in the sacred precincts, which will throw light on the disputed topography of the interior.

Mr. Schick had just commenced the examination of Captain Warren's Tank No. 24, which lies under a square house used for storing tiles in. Here Captain Warren only remarks that the rock is at a depth of nine feet from the surface, sloping west at an angle of thirty degrees. Descending into it, we found that the rock, though irregular, and rising towards the east, forms the floor of the great part of the chamber. On the north side is a scarp, cut very distinctly, running to the east wall of the chamber, about one foot from the north wall, the interval being filled with dust and the rock foot not visible. (See Sketch 1 from the O. S.) The east wall also consists to a considerable height of a finely worked scarp of rock, which I suppose deceived Captain Warren, who took it for masonry; no joint, however, exists between it and the rough rock at its foot. The chamber is vaulted, with steps at its south side, and above these the same scarp is again visible. How far it extends southward there is no saying, but we have here indications of a corner of some kind, a sudden descent from a level about two or three feet below the platform to one of some ten feet. On the rough rocks there are marks as though of the remains of steps, or of masonry, fitted against the wall. The interest of this discovery is very great, and no doubt it will form a new point in future theories on the temple.

The sketch which I send will show the position with reference to the mosque, which is to the south-east of the spot. The line of scarp continued appears to cut the top of the steps from the gate above Wilson's arch. The north scarp is on the lower level, and finishes the rough rock; its junction with the eastern scarp is hidden by plaster on the wall. The higher, or eastern scarp, has a set back of about six inches, about two feet from the top of the rough rock. The neighbouring deep cistern should be examined, to see if it contains any indication of a continuation of this scarp.

The distance, taking the middle of the Sakhras as a centre, is nearly equal from the south wall of the platform, and from this scarp on the north. This again may be an indication of the platform not having originally extended so far on the north as it now does.

Entering the mosque itself (an impressive and most interesting interior, with its glorious windows and brilliant mosaics) we walked round and round the sacred rock, and made on the architecture of the mosque many valuable notes, which have, however, no place in this report.

A more minute survey of the Sakhras than has yet been made is much to be desired, and could it be accomplished a good deal would come of it. The outline only is given in the Ordnance Survey, and the plan and section of M. Du Vogüé are not exhaustive of its details.

On the exterior of the stone I remarked several interesting indications, but what they tend to show is not yet clear. First, the western face, which is the highest, is an artificial scarp, and careful investigation shows that it has a broad step running nearly all the way along, and indications of a second. A gutter, also, or channel, descends the rock at its north-eastern extremity. On the west are indications as of stepping, to receive courses of masonry, intended perhaps to equalise its height, which is much lower on this side, sloping regularly to the floor.

The shaft so adventurously investigated by my predecessor, has now been closed with cement. The cave itself we entered and examined, but not too attentively; the mats on the floor were not removed. There appears to be a difference of sound in the floor on the two sides of the flight of steps by which the cave is entered, as though a hollow passage led beneath; Mr. Drake noticed this, and a similar sound at the northern end of the cave, on a previous visit.

The dome of St. George Mr. Schick has entered, and found nothing of great interest. We visited all the houses but one on the south side of the platform; they run under it a little way, but are not apparently rock-cut. On the west side the houses are built against the platform, and show no indications of rock, but an inner chamber in one, south of the great steps, had a very hard cement, and may possibly be worth examining by breaking through its eastern wall.

The steps, and the garden to the north of them, must also on the earliest opportunity be examined.

The substructures under El Aksa, and at the south-east corner of the Haram, the Golden Gate, and the northern scarp, though interesting to see, gave no new indications, and the only observation made further,

was on the apparent antiquity of the east gate of the platform. The fifth step, some 30 inches from the level of the interior, appears, though it is not a certainty, to be cut in the rock, an important indication of level. Old drafted stones appear in the side piers, the old columns built into the central piers have their bases below the present level, and finally, the line of the gateway seems almost, though it is difficult to judge, to differ from the line of the wall on this side.

Under the Dome of Spirits, at the north-west corner of the platform, Mr. Schick thought the rock was visible, but this I think extremely doubtful.

Next in interest to our Haram notes comes the investigation of the scarp on Zion, which was conducted on three separate occasions. Though already surveyed by Capt. Wilson,* I have thought it worth while to go over it again, as of the greatest possible interest in the tracing of the old first wall on this side.

Commencing on the west, outside the Bishop's church, we found a rubble wall in hard cement, over which was a thin stratum of fine old shingle and broken pottery, beneath the more modern mound of *débris*; and in front of this the top of a stone, with apparently the remains of a vertical draft, was noticed, and a little farther off another was discovered, the line being a production almost of the present west wall of the city from the Jaffa Gate.

The wall of the Bishop's school stands, as does the whole of the dining-room, on the great buttress next in order. The steps are distinctly visible, and the scarp itself on three sides. We are informed that there is a sudden drop or second scarp. The scarp is continuous from the buttress, but not visible in the parts where it is not shown, but the foot of it is never seen, as it is covered by a pavement. The line of cisterns runs apparently behind the scarp, but they must all be examined thoroughly to see whether they are rock-cut or not, for the steps appear to be so, and it is therefore probable that those near it are entirely or partially so.

The four steps are possibly more modern work, as also the cutting back of the top of the scarp, which here appears, and is of irregular height.

Here again, in a room occupied by a shoemaker, the other scarp or side of this rock-cut rampart was found when the house was built; the northern pier of the room rests on rock at a level of 15ft. below the floor, but the top of the scarp is nearly on the same level with this floor. From these two indications we may conclude that the rock has been artificially lowered on the inside, forming a kind of covered way inside the wall, and that on the outside a precipitous scarp formed the foundation of what was no doubt the city wall on Zion.

Passing the second buttress, which has a step or return on the west side, at a height of about 5ft. we come to the remains of a cistern of some size, and coated with hard cement. Its position is

* See Ordnance Survey map of Jerusalem, 1868 plan, and "Notes," p. 61.

puzzling if, as would seem most probable, its base was rock-cut, in which case the scarp must run here farther south, forming a step. The rock here projects slightly, and the scarp, which is here from 15ft. to 20ft. in height, runs on, forming the north wall of the English cemetery, and here another flight of thirty rock-cut steps appears.

These steps* have been already examined by Captain Wilson, who excavated to a total depth from the top of the scarp, of some 35ft., but without striking the rock at the base. The excavation still remains, but is blocked with fallen stone at the end. Just to the east the scarp again projects and is lost under the rubbish outside the east wall of the cemetery. It is, however, to be remarked that here, as on the western side, the compact shingle mixed with pottery underlies the modern *débris*, and probably, as in the former case, overlies the masonry or rock.

Continuing our exploration eastward from the last point, we come on what appears to be a continuation of the scarp, or a sally-port with a rock scarp on either side. The indications here are, however, by no means so clear, as the rubbish has filled up the space between the two scarps, and as some of the details seemed to point to its being merely one of the innumerable rock-cut tombs round the city. On the outer or southern scarp, a broken cistern, another, small but complete. The remains of an oil press, and indications of what may have been steps, are visible. In the northern or inner scarp, which is also the highest, there are indications of a buttress similar to those before described, but a water channel cut in it at first disposed us to imagine this scarp to belong to a tomb. The rock is here traced in a north-east direction, going towards the Mosque of David, and three cave entrances lead to rock-cut irregular caverns, having apparently no connection with each other, and though thoroughly examined, showing no indications of value or interest.

Such is a rough sketch of the rock rampart of Zion, to the importance of which too much attention cannot be given. Its existence at a part of the town where nearly all agree the ancient city wall must have been placed, and the facility of examining it thoroughly, as being placed outside the modern town, in an uncultivated part, render it most desirable that trenches or mines should here be undertaken, to explore it more perfectly and follow up the valuable clue thus obtained.

The first requisite will be a proper survey of the part at present visible, which occupies a total length of some 300 yards, observing the lie of the rock in the cisterns, the distance apart of the buttresses (probably an important point), and the level of the top of the scarp. It will then be necessary, where possible, to find the depth below the present surface to which this huge effort of human labour is carried down; and, finally, the discovery must be followed up on both sides—northwards to the city wall on the west, and eastward or northward, as the case may be, from the eastern extremity of the double scarp.

The method best adapted for following the scarp on the west, is the

* See Ordnance Survey Notes, p. 61.

driving of a mine from the side of the hill beneath the modern *débris*, at right angles to the presumed direction of the scarp or wall; whilst on the east the rubbish must be cleared out, and if necessary a shaft sunk between the two scarps, in search of indications of an entrance of some kind. Another shaft must subsequently be undertaken still farther east, in search of the continuation of the rock or of the foundations of the wall. The indications of its precise position are not as yet as clear as in the former cases. The thirty steps should be farther followed, and the total number of mines here required would probably be four, to be undertaken in succession, and none of them likely to be of very great extent.

To hazard a theory on the probable meaning of this interesting work is perhaps premature, but it suggests itself most forcibly to the mind that here we see the south-west corner of the first wall of Josephus, and very possibly the remains of one of the gates. Now, at the south-west corner, we are told, was the place called Bethso and the gate of the Essenes; and if, as Dr. Chaplin has suggested, Bethso and Beit-sur are the same, the meaning of the latter word as being the "place of the hard rock" may very well connect "the place called Bethso" with the scarp as now existing. In which case we might possibly discover the gate of the Essenes in the position where indications have been observed of a gate.

Eastward from the Zion scarp our explorations did not bring anything of importance to light. The rock on the brow of the hill appears constantly, so that, except round the Mosque of David, the *débris* cannot be of very great depth in this part, and the chance of finding foundations is therefore considerably reduced. It is, however, most striking to observe the immense labour devoted by the inhabitants at some period when the now uninhabited slopes of Zion were covered with buildings, either suburban or within the wall, to insure a water supply during the dry months of the year. Cisterns connected by small pipes or aqueducts, running in a chain one below another, and so arranged that it was not till the one immediately above was full that the second could receive any supply, are found in every direction. Many are now being destroyed by the Arabs in the process of quarrying stone, as it is of course more easily obtained by breaking in the thin surface of rock than by attacking a solid mass. Several large caves, some of unexplored extent, and rough rock-hewn tombs similar to those in the so-called Valley of Hinnom on the opposite slope, are also found, but do not seem to promise any indications, and the question of the exact course of the ancient wall is rendered still more difficult by the present lie of the surface (following no doubt to a certain extent that of the rock beneath), and apparently at variance with most preconceived theories on the subject.

On the opposite tongue of Onphel the same features reappear. Here an aqueduct of larger proportions than those on Zion has been broken up: part still remains intact leading to a cistern, in the roof of which is a shaft. This ought to be explored on the earliest opportunity. It is at a very much higher level than that explored by Captain Warren from the

Pool of the Virgin, and runs along the eastern slope above the Kedron valley. Dr. Chaplin and I also examined several rock-hewn tombs, but here, as on the western hill, no great indications exist.

The village of Siloam and its rock-cut tombs, which owing to the turbulence of the inhabitants is almost unvisited, next attracted our attention, and we ascended by the precipitous and slippery scarp which has been so cleverly identified by M. Ganneau with the stone Zohemoth of Scripture. The name "Zehweileh," and the interpretation, "a slippery place," we found to be undoubtedly in use and understood by the inhabitants, who were carefully questioned, with the same result in every instance.

In the village itself the inhabitants live partly in large caves and quarries, in which also their animals are stabled, a troglodyte propensity which appears very usual throughout Palestine, and is the more curious amongst a people to whom the labour required for excavation of such abodes is unknown, and whose buildings even are of the rudest description. All the houses in Siloam are modern, but the rock-hewn quarries and tombs are no doubt of great antiquity; on many of them, however, there are Christian crosses rudely cut both within and on the exterior; but in no case either here or farther north was there any indication of the *loculus* placed endways in the tomb, supposed to be characteristic of Jewish sepulchres.

Siloam may possibly prove a fertile source of inscriptions. Here M. Ganneau discovered on the rock the one containing the name "Beth Baal," and in the main street a rough stone with the appearance of Phœnician characters. Here also we were shown, built into a wall, one with square Greek characters of rough execution. This Mr. Drake copied, and a sketch is now forwarded. It appears to belong to a mortuary tablet, and is partly defaced. Farther north we again hit upon an inscription of most puzzling character, which merits to be more particularly described.

Immediately north of the village the steep rocky side of the Kedron curves back, and the valley between this point and the tombs of St. James and Absalom is broader, and on the eastern side less precipitous. A glance at the Ordnance Survey map will explain this better than words can do.

Here, then, a flat plateau of rock separating the lower precipice from the upper by some thirty or forty feet, leads to a rock-hewn tomb which stands above it in a kind of buttress, and contains on either side of the entrance a sort of rough window pierced through the rock.

Immediately east of this the rock is scarped back to a still greater distance, and at places on the present level, partly covered with rubbish, it is coated with a hard cement and painted.

On a ledge running approximately north and south, we discovered the pattern of which I send a coloured sketch, and in its immediate vicinity, the inscription, defaced partly by age and partly by the growth of lichen. It consists of small characters in white paint or

enamel, very hard, slightly raised from a ground of grey-blue cement. The characters are placed one beneath another in ten vertical lines, and are unintelligible, and almost impossible to trace. Of the date and character of this building, apparently lying east and west, and partly rock-hewn, it is probably almost impossible to give any idea.

Immediately below the rock plateau is a curious detached rock-cut tomb, consisting of one chamber with a recess in each of its four walls. Its exterior mouldings are almost Egyptian in character, and in front of its door is a small tunnel or rough stone vault lined with hard cement, and now filled with rubbish. The end is not visible, and being so near to the other cement-lined ruin, it would be interesting to clear it out.*

The number of rock-hewn tombs here situated is large, and their character curious. The cross is found on several, and in none does the Jewish *loculus* exist. Some have recesses as though for urns or *osteophagi*, but few are sufficiently large for a body to be placed in them. They are all entered through small square entrances just large enough to crawl through, but afford room to stand up in comfortably. Some marks in the walls seem to indicate that lamps were hung or placed in niches. Two of the larger have stone-cut *loculi* in their sides, as shown in the sketches, with marks of a groove where the lid was placed.

The latter of these is better cut than most, and has a pointed roof. Some few have an inner chamber, but most have but one. In one of the *sarcophagi* a place for the head appears—not the ordinary roller for the neck, but a hollow sunk to receive the nape of the neck and the back of the skull.

Sunset put an end to our explorations, which might, however, be renewed with advantage, as the date and history of these tombs is a point apparently difficult to decide. They seem, however, very probably to have been at some time or other inhabited by Christian hermits.

These expeditions round Jerusalem might be continued for a long time, and probably would always bring to light new points which had before escaped notice. The southern part of Siloam, the slopes of Hinnom, and Aceldama, together with the extent of ground north of the city, all require minute investigation, and much is still to be recovered in the city itself. Some half-dozen inscriptions are still unceped, and a most valuable addition to our information will be given soon by Mr. Schick, who is better acquainted than any one else with the depth of the rock at various points throughout the city. Three relics—a head, a bas-relief apparently from a *sarcophagus*, with Greek characters, and a Roman inscription—are built into the wall of the Prussian consulate, and are, I believe, still unpublished in England. Even above ground, in the heart of the town, there is still much work for a patient explorer to do.

On the north side time did not permit of much reconnoitring, but the indications observed were interesting. The discovery by Captain Warren of a wall running north of the Haram enclosure, and the existence of the

* A plan and section of this are given in the Ordnance Survey Notes, plate .24, and p. 64.

rock-cut trench which may very possibly be anterior to Saladin's fortification of Jerusalem, would seem to point to a solution of the question of the course of the second wall east of the Damascus Gate. Explorations, and if necessary excavations, near this latter would be most interesting, and I fully believe productive of results.

That the gate itself is near an ancient entrance has been already proved, and to the east of it, therefore, if practicable, the wall ought to be sought and found.

There is, in conclusion, but one point of immediate interest to notice, and this is the Kalaat el Jalud, a rough irregular mass of rubble, set in hard mortar or cement, situate in a waste corner close to the modern city wall. Captain Wilson's investigations and trenches failed there to bring to light anything of interest, and the style of masonry has continued a puzzle to the present day. It is evident that dressed stone of some kind originally faced the rubble; and similar work was discovered in a wall near the Jaffa road, outside the present city wall, by Mr. Drake, who ascribes both to the Crusading period.

A window has lately been broken through the wall, and looking through we perceived drafted masonry of moderately large size.* Descending first into a chamber, some 5ft. or 6ft. below the present level, we explored it, but found it to consist only of a mixture of rubble work, and drafted stones of small size, with a rustic boss; the roof vaulted and cemented, and the entrance a pointed arch. In the second chamber, which has the same vaulted roof, the walls are of similar masonry, but without rubble. The entrance has an older arch, inside which the more modern arch is built. At the opposite end of the chamber is a second arch, dimly visible; it consists of five stones, with a marginal draft, and the boss in the centre dressed. The draft follows the form of the stone, and the keystone is cut out beneath to give a point to the arch. Three or four courses of stone dressed, and with the draft as in the arch, form a wall running approximately north and south; above this is rubble work, as on the outside of the Kalaat.

But the most curious feature of this building consists of the two great piers of drafted stones, with a rustic boss. The length of one of these is some 7ft. 6in., and the sixth course appears to go through the vault of the roof of the chamber, whilst another course is just visible, the greater part being hidden beneath the floor. The appearance of these buttresses or towers is that of the entrance to a gateway; it is doubtful whether they have any connection with the arch, but at any rate they are much older than the rubble work of the Kalaat el Jalud, which has surrounded them.

The more we see of the drafted, or, as it is falsely termed, "bevelled" masonry, the more we become confused, and the greater the difficulty of fixing a date to any specimen. The draft was originally supposed to

* These chambers were opened by Capt. Wilson in 1865, and a description of them is given at page 73 of Notes to the Ordnance Survey of Jerusalem, with plan and section, plate 27.

be an exclusive mark of Jewish work, but its frequent use by the Romans, its appearance in the wall at Passagardæ, and subsequently its use by the early Christian, and even in several instances by the Saracenic, builders, in Jerusalem and other places, have proved the fallacy of such a theory. Besides the huge smooth-faced Herodian ashlar of the Haram, Captain Warren distinguishes two kinds of masonry, the drafted ashlar with a rustic boss, and the drafted ashlar with a smooth-dressed face. Work similar to the former was used by the Romans, and (in smaller proportions) the smooth-dressed drafted ashlar by Romans, Christians, and Saracens. Thus it is impossible from the draft alone to tell the date of any kind of this masonry.

Far more characteristic of Jewish work is the enormous length of the stones, as compared to their height, which is exactly reversed in Roman work, where the height of the stone is sometimes greater than its length. The latter is the case in the rustic drafted stones of the Kalaat el Jalud, and as the rustic boss was not used by Saracenic architects, it seems most probable that these two buttresses, which seem to stand *in situ*, are Roman work at Jerusalem.

Of what exact date they may be it is more difficult to decide, for the largest of the stones are small compared with the drafted ashlar of the base of the Tower of David, and these again are dwarfed by the Haram walls; and still further it must be remembered that between the Roman work of Herod and that of Justinian, comes the period, so little studied, of the Emperor Hadrian. Surely of the two great market-places, the theatre, the mint, the tricameron, the tetranymphon, the anabathmi or dodecapylon, with which he ornamented the city, some traces must still exist, and must not be confused with the earlier work of the Jerusalem of the Christian era.

It would appear, then, that the Kalaat el Jalud, though dating itself at some period not earlier than the eleventh century,* contains the remains of a building of Roman work, and possibly of two dates; whether, however, this structure belongs to the *Ælia* of Hadrian, or to some earlier work of Agrippa, or even, though this is scarcely probable, to Herodian date, cannot at present be decided.

Such are the results of a week's reconnaissance in Jerusalem; and, such as they are, they give some encouragement in the pursuit of archæological remnants, which, when compared carefully with former discoveries, may lead to results of some importance in the settlement of the vexed questions of the ancient topography of the city.

* The Kalaat el Jalud is generally supposed to be the Tancred's Tower of the Crusaders, which, according to William of Tyre, was at the north-west angle of the city.

MR. TYRWHITT DRAKE'S REPORTS.*

I.

CAMP EL JIB, *March 20th, 1870.*

On the 4th and 5th inst. we moved our camp from Beit Nuba, where we had stayed for nearly five weeks, to the site of the ancient Gibeon. The present village is situated on the northern and smaller top of the double hill which, shaped like a figure 8, lies in a kind of basin north of Nebi Samwil. This basin is a tract of fertile ground, producing pears, grapes, figs, almonds, &c., in addition to the usual ground crops and olives, formed by an eccentric watershed, which, beginning at the head of Wady Selaian, in the first instance flows due east, then turning southwards round Bir Nabala, passes Lifta and 'Ain Karim, and eventually reaches the Mediterranean near Yabneh. The heads of this wady to the north of El Jib are called Wady Askar and Wady Hammūd, which latter comes down from the north-east of Bayt Unia, divided by a low watershed from an upper valley, a rise in the bed of which forms a barrage. Above this a pool covering some six to eight acres to a depth of 2 ft. is formed during the winter. It is termed El Balūa, "the sink."

Nebi Samwil lies a short distance to the south, on the culminating point of a high ridge running east and west, and is separated from El Jib by Wady el Kibliyeh. The view from this place, which is usually identified with Mizpeh, is extensive. It includes Mount Gerizim and the promontory of Carmel to the north; Jaffa, Ramleh, and a wide stretch of the maritime plain to the west; Jebel Furaydis (the so-called Frank mountain), the far distant mountains of Jebāl, the town of Kerak, Jebel Shihān (the highest point in Moab), are seen to the south and south-east; the continuation of the Trans-ordanic plateau, with slightly undulating outline, stretches to the east and north-east. This reputed tomb of Samuel has naturally formed an important trigonometrical station, and is one of the few points known to me whence Jaffa and Jerusalem are both visible.

Beautiful scenery can hardly with truth be said to exist in this country, but some of the prettiest views in Palestine proper are to be seen by looking westwards from the edge of the central range. At one's feet are deep rugged valleys more or less clad with brushwood, and olive groves strongly contrasting with the white lines of upheaved limestone which gleam like the skeleton ribs of a dead cultivation. Beyond, softened by distance, lies the great maritime plain, here a vivid green, denoting a tract of young wheat, there a fallow of rich red soil bordered by a sombre mass of olive-trees, rendered still blacker by the shadow of a passing cloud, while a gleam of sunshine shows off the white houses of Lydd and Ramleh and the fine tower of the "White Mosque" against the setting of gloomy trees. Far beyond these a thread of golden sand divides the emerald of the plain from the turquoise of the sea. A rounded mass of white, in shape like an exaggerated molehill, glistens at the

* The following letter ought to have been printed in the last *Quarterly*, but was delayed in the post.

north end of the sand dunes. This we recognise as Jaffa; beyond lies the sea, flecked here and there with a tiny white speck, the sail of some coasting trader. Nearer beneath us, in the "*Shephelah*" and lower slopes of the main range, nestle countless villages, few of whose names have yet blackened any map, for the land of the two tribes of Beni Hárith (the northern and the southern) is as yet a *terra incognita*, where the map-maker has not even ventured upon the normal wady resembling rather the veins in a laurel leaf than an intricate system of valleys draining an abrupt mountain slope. This district, lying north of Beit 'Ur el Foka (Upper Beth Horon) and extending nearly to Náblius, is cautiously marked "not examined." It seems thickly populated, and plentifully strewn with olive groves. The *sinowbar* (stone pine) is also found here.

A fine day at this time of year shows the country in its best cloak. A little later in the season every blade of grass will be withered up; the shrubs on the hills will be blackened and parched; the plain will be covered with an impenetrable veil of white mist known to the African traveller by the appropriate name of "smokes." Above head the sky will be that pitiless glare of changeless blue, never to be relieved by a single speck of cloud till the welcome rains of autumn begin to cool the scorched soil and burning rocks. These fine days of early spring are rare, however, and we must often look for cold pelting rains, mists, hail, and even snow—though the latter very rarely, and only on the central range. While I am writing these lines hail is falling, and dense fogs, accompanied by sharp showers, at intervals are hurried up by the violent equinoctial gale from the south-west, which threatens every moment to tear the frail cotton shelter from over my head and hurl it into the neighbouring valley. Stout guy ropes and piles of stones on the tent-pegs have as yet succeeded in baffling Æolus, though for three nights and days we have been obliged to be on the alert every instant to save our tents from wrack and ruin. Only a few days ago the weather was like a fine June day in England.

Such are the changes of temperature to be found in this country from Petra to Damascus. Just two years ago I was snowed up near the former place at an elevation of 4,500 feet, and three weeks later in Moab, being only 1,500 feet lower, I sighed for a lump of snow to put in my tea, the thermometer standing at 105° Fahr. in the shade. At Damascus (2,340 feet, in the Salahiyyeh suburb) snow is rare, though sleet is not uncommon in winter. In summer the thermometer ranges up to 100° Fahr. in the shade, and there is at times a difference of as much as 30° between the dry and wet bulbs.

Exposed to these extremes, the fellahín suffer a good deal from rheumatism, coughs, and bronchitis. The men wear a sheepskin coat as a wrap on warm as well as on cold days, but the women make no change in their dress, which usually consists of nothing but a long blue chemise tied in round the waist, a bonnet of red cloth decorated with an edging or roll of silver coins bordering the forehead and extending to the ears, reminding one of the crescent-shaped female head-dress worn by some of the Egyptian priestesses; over this a veil or shawl of coarse white cotton is thrown and hangs down to the waist: it serves to cover the mouth, while the bosom is left exposed, eastern and western ideas of

decorum differing on some points. In certain districts, however, such as the eastern Anti-Libanus and Jebel ed-Druze Hauran, where the villages are not unfrequently snowed up for forty or fifty consecutive days in mid-winter, all the inhabitants must perforce use sheepskin coats, which are also worn by many Bedawin tribes. In the towns the richer classes have many imported luxuries, such as broadcloth coats lined with Russian fox or ermine. Many men, both Jews and Moslems, continue to wear these furs all the year round, both here and in Turkey.

It is well known that the population of this country must, even as late as the sixth and seventh century, have been very large. I was hardly prepared, however, for the number of ruins which I have come across. Many persons would doubtless smile in pity were I to show them a hill-top now occupied by a rude wall enclosing a few fig-trees and a rock-hewn cistern or well, and say, "Here is the site of a considerable town." Most of the ruins are at the present day invisible to the unpractised eye, but may be traced by the wells, tanks, and caves hewn in the rock—the latter still inhabited by a race of Troglodytes half agricultural, half pastoral—by fig-trees and an olive grove, or a few patriarchal trees split by ages into two or three distinct trunks,* grey and gnarled relics of former prosperity. The eye will detect carefully-squared stones in the loosely-piled walls of the garden or sheep-fold, and inquiry will teach the traveller that everywhere beneath the soil, where vegetation assumes a deeper green, covering perhaps two or three acres, squared stones will be found thickly strewn. In another place a few heaps of stones, the universal wells, and a few foundations may be traced above ground. Unimportant as these ruins now seem, chance will occasionally throw a gleam of light on one, and analogy leads to a true value being put on others.

I had heard the name of Deir el Rohbán (Monastery of Monks) applied to some ruins said to exist between Latrún (which, by the way, is always called *Ratlún* by the natives) and Shaykh Músá Tell'ia, a saint-house—of which more anon—conspicuously perched on an isolated block of hill which forms an outwork of the *Shephelah*, and whose west edge is occupied by Tell el Jazar. On riding up to the ruin I could at first see only a few heaps of stone in the form of hollow squares, outlining the ancient houses, but nothing to denote a site of any importance. Presently I came upon a long sunken building, some 60 × 15 ft.; at one end of it I found a small door and part of the circular vaulting (with keystone) which formerly covered it all in. The masonry was good and the stones well hewn: the quarry from which they were cut is visible about a quarter of a mile to the south-east. A neatherd from Amwas, in the territory of which village this ruin is situated, told me that the rest of the vault had been demolished by the people of Ramleh for the sake of the ready-hewn stones, as they found it much easier to carry them that distance than to quarry them nearer at hand. This deportation of stones has spoilt many a ruin. The site of Khalasah in the Negeb, for instance, is left almost stoneless

* I frequently observe that the bark gradually encircles these split trunks, which at last assume the appearance of two or three trees growing from one root. Thus the olive indulges in a second childhood.

by the pilfering of the Gaza folk. The shaykh of this village tells me that his father and others built their houses entirely of the stones which they brought from the ruins of El 'Amayziyeh, some two miles distant. In fact, wherever a ruin is handy, the fellahin prefer digging up the well-cut seasoned stones to the toil of cutting them afresh.

Turning from this vault I crossed a small ploughed field and suddenly found myself on the brink of a circular, well-shaped cistern of careful construction. It still measures 31 ft. in depth, though the bottom is a good deal choked up with earth and the plaster which has fallen from the sides. The diameter across the present top is 25 ft., but the opening must formerly have been much smaller. The diameter at bottom I should estimate at some forty feet. It is lined with stones, of which the faces are nearly uniform in size, with a broad draft and small rustic boss; sectionally the stones are alternately long and short, are backed by a bed of rubble and cement, and this again by rough masonry of undressed stone. One conduit, about 3 ft. \times 2 ft., and two smaller channels, lead into this reservoir, which in places retains a lining of cobblestones covered with plaster. Hence it would appear that the stones were drafted not for ornament but for use.

Had it not been for this cistern and vault, there would have been no proof, without excavation, that this ruin was ever more than a village such as the fellahin now inhabit, and there is no legend or name to make us believe that it was other than an ordinary townlet of the period. These two works, however, clearly prove the existence of a large civilised and industrious population, of whom no other trace remains except a few fragments of glazed pottery, a ware now unknown in the country, and rarely found in ruins. The same fact is also proved by similar works scattered among other ruins, by the grape and olive presses, by store or dwelling caves, by wells, cisterns, graves, and quarries, all hewn out of the solid rock, and which are everywhere abundant, but especially in the *Shephelah*.

When we come to consider the labour that must have been expended on a single cistern 20 ft. to 30 ft. deep, shaped like a church bell or inverted funnel, the opening being nearly 2½ ft. diameter, and the bottom 15 ft. to 25 ft., and cut out of the solid limestone, we can realise the industry of the people who have left countless examples of these works to be neglected and uncared for by the ignorant savages who now inhabit the land. It is no uncommon thing to find groups of 3 to 10, or even more, of these fine excavations. Some are near modern villages, in which case the lazy fellahin will every few years clean out the accumulation of filth and mud which has been swept into them by the surface drainage, for the passage of which I have seen channels cut through masses and heaps of garbage and manure thrown on the outskirts of the village, revolting alike to eye and nose. Others are found scattered over the country, and I have frequently observed isolated examples on hill tops, where they would be supplied by no more than half an acre to an acre of surface drainage.

As I have before mentioned, modern Troglodytes inhabit the old caves in common with their cows, sheep, and goats. The entrance is usually a smooth-dressed passage cut in the rock, about 3½ ft. to 4 ft. wide, open above, and descending either by an inclined plane, or shallow steps, to the doorway of the

cave, which is 4 ft. by 2½ ft. The walls of the cave itself are seldom smoothed; in shape it is circular or oval, and rarely 6 ft. in height. The centre is occupied by the cattle, while the portion reserved by the human part of the community is marked off by a line of stones, and sometimes assumes the form of a *mastabah*, or slightly raised narrow daïs. The manure is carried out every morning and deposited in a heap just so near as not entirely to block up the gangway. The state of the cave after a heavy down-pour of rain, which contributes some six inches of water to the general Augean uncleanness, the slimy damp of the walls, the mosquitoes, the vermin, the reek of men and beasts, makes an ordinary English pig-stye a palace by comparison. And yet the indolent, able-bodied rascals, dignified by the title of reasonable beings, who own this byre are too lazy to build themselves huts, but prefer using the caves bequeathed them by the Hebrews and heathen of old, and lounge over the hills with their herds, or, rolled in their *abbas*, snooze in some sheltered nook without a thought or an aspiration beyond cramming their stomachs with crude wild herbs, or gathering a few piastres by hook or by crook, but, most important, with the least possible exertion to themselves. These men are often too indolent to turn an honest shilling by acting as guide for two or three hours, but will make their miserable women and children tramp ten, fifteen, or more miles in the day, to and from market to sell a bundle of dry stalks, called by courtesy firewood, a skin of milk, or a few eggs, worth in all sixpence or eightpence. The cave-dwellers I must, however, allow are sunk but little lower than their house-sheltered brethren. Their wants are few, and their means of supplying them equally scanty.

The goods and chattels of a modern Horite may easily be catalogued, say, some twenty or thirty sheep and goats, and four or five head of cattle, a half-starved dog, a couple of wives, and half-a-dozen children, a pair of doukeys, and a rusty gun, a few skins to hold milk, an earthen jar or two, a quern, (perhaps) a couple of tazzas of common pottery, rarely of tinned copper, to drink *leben* (soured milk) out of, a primitive plough and ox-goad, the woodwork being of home manufacture, and the iron share and spike, the handiwork of itinerant *Nawwar* (gipsies)*, and these with a few bits of hair-cloth, which serve as wraps, bedding, or sacks for grain as occasion requires, complete the list. Wild herbs, especially mallows, *Khabbayzeh* (a general food for the poor in N. Africa, Syria, and Palestine), millet bread, and various preparations of milk form his chief diet, which is varied only by flesh when the rusty flint, or match-lock, succeeds in knocking over a partridge, or gazelle, crow, or hyæna, or when the throat of some sickly goat must be cut "to save its life." Beef is almost unknown in Palestine, and not at all appreciated, as none but diseased beasts, or those past work are slaughtered. A man once said to me, by way of showing that hyæna's flesh was fair, though not first-class food, "it's very like beef." In the villages, poultry, eggs, and pigeons were common, though

* These people, who are found all over the civilised, or semi-civilised world, from S. America, to Siberia, still retain their original (one of the East Indian) dialect, and always follow the same trades; tinkering, dancing, weaving, baskets or chairs, horse-dealing, and chicken stealing, palmistry, and general kuavery.

the former are rarely eaten; olives, *dibs* (grape-treacle), barley, or sometimes wheaten bread, are added to the above list.

I made mention of a saint-house—the tomb of Shaykh Mûsà Tellia—a few lines back, and will now give some details about these sacred spots. In European books and maps they are usually termed “Welys,” confounding the entombed with the tomb, the saint with the saint-house. They are of two kinds: 1. The actual tomb in, or more properly—for the Moslem religion objects to burial in a place of religion—adjacent to a small domed building which serves as a mosque, and which invariably has a *Mihrab* (prayer niche) turned towards Mecca. 2. A *Makham*, which I cannot translate better than chapel, either with or without a cenotaph. This is a dedicatory building to a prophet or saint, erected, more or less rudely,* either in fulfilment of a vow, in obedience to a dream, or prompted by ostentatious piety.

Either class of building is considered equally holy, ploughs and other agricultural implements deposited in them are perfectly safe. In Moab I noticed that the graveyards on the open plains were heaped with ploughs which no raider or pilferer ever dared to remove. An oath upon a saint's tomb, especially if like Sidna Ishak (the patriarch Isaac) at Hebron, he be famous for a violent temper; is generally to be depended upon. I heard, however, of an instance at Kharaybeh in the Anti-Libanus, where a man perjured himself at a shaykh's tomb about some money matters. Soon afterwards one of his cows died, and he was so impressed with the belief that this misfortune was due to his falsehood, that he incontinently went and confessed to his debtor, and apologised to the saint (shaykh) whom he had insulted. In Morocco the natives believe that to shoot a bird which has taken refuge with a sidi (saint) is to incur the certainty of fever or other illness, and the probability of death. Many instances were quoted to me in proof of this belief. I usually considered the illness brought forward as due to malaria.

A tree growing, as one usually does, over a shaykh's tomb is like the Fijian “taboo.” It is never cut, and if a bough breaks off in the course of nature, it is not carried away for fuel, but carefully laid up near the tomb. In the same way any fragments of the building or tomb which decay and fall are not

* That of Nebi Barok (Prophet Baruch) on the Anti-Libanus is merely a rude oval pen of stones without a roof, and ornamented with a few dedicatory camel sticks and switches. Shaykh Abu Zeitun, on the contrary, near Beit 'Ur el Foka, has a mosque, with chambers for pilgrims, well built and strewn with matting. The tomb of his mother (Umm el Shaykh, Bint Ahmad el Dujáni) on the same hill, is a larger building, but not so well kept up as her son's, to which *wakf* or glebe land is attached. It is not known who Shaykh Abu Zeitun was, nor what was his name in life. He is called the Father of the Olive, from the fact that long ago a man dreamt that he saw a light burning on the hill, and that a man of majestic appearance intimated his wish to have a mosque built there in his honour. Urged by this the dreamer went to the spot, saw a curious light, and to his great surprise found a fine olive-tree growing where none had been the day before. He was so impressed that he forthwith built a mosque in honour of Abu Zeitun, who enjoys at the present day a very high reputation through all the country side.

thrown away, but scrupulously preserved, generally in some out of the way niche or corner.

It is easy to trace in the reverence paid to these tombs, and the sacrifices of sheep, &c., offered at them, unsanctioned by the strict laws of Islam, traces of the old worship of demi-gods, heroes, and local powers, still retained in the Romish and Greek churches under the guise of adoration to saints, martyrs, *et hoc pecus omne*, traceable, too, through the belief of the peasants of Europe in fairies, elves, trolls, and gnomes. The custom of hanging rags, &c., on certain trees, may also be a lingering of one of the earliest material worships, that of trees.

One point to which I am specially directing my attention is the lie of the old Roman and other high roads. These are in many cases easily traceable and will eventually prove of great topographical value in elucidating sites noticed in old itineraries. I have already been able to trace several, which I shall treat of at greater length on a future occasion.

JERUSALEM, *March 2nd*, 1872.

Having finished our work in the neighbourhood of El Jib, we moved up here on the 23rd. Directly after Easter I intend to move down to Jaffa and survey that neighbourhood, which has not yet been done, as the expedition commenced operations at Ramleh. I hope to get this bit of work done before the Khammasin winds (siroccos) set in in May. The summer months I intend to pass on the main range, as the highest and coolest district to be found.

II.

P. E. F. CAMP, NABLUS, *July*, 1872.

Taking occasion of the non-commissioned officers having fifteen to twenty days' indoor work, for which the Rev. Mr. Elkevy, Protestant clergyman here, kindly lent a room in his house, on the 21st ult., I started for Damascus, to take a few days' change of air after an attack of fever, and also to make arrangements for baggage mules better than those under the existing contract, the term of which is nearly expired.

I took the most direct route, viz., by Nazareth, Tiberias, and Kunayterah, accomplishing the whole distance in three and a half days (34 hours). This route has been so often described that I shall merely notice the great difference that has taken place in the country within the last few years, and which is chiefly owing to the suppression of Bedawi *ghazzawat* (raids). Less than eight years ago the Plain of Esdraelon (*Marj Ibn 'Amr*) was the favourite summer camping ground of various trans-Jordanic tribes, notably the Ruwalla, one of the great clans of the 'Anazeh tribe, as well as others of less importance. These sons of the desert not only prevented the cultivation to any great extent of this wide and fertile plain, but also exacted black mail from the unfortunate peasants, whose cattle and crops were, notwithstanding this,

frequently lifted or destroyed. On my first visit to the plain, in 1870, not more than one-sixth or one-fifth was under cultivation, and the same was the case in the following year. In both these seasons, however, there had been a sad deficiency of rain. On this last visit I was somewhat surprised to find nearly the whole plain covered with splendid crops, which I estimated to be distributed in the following proportions:—

Corn and barley	45·0
Millet	35·0
Simsim (sesame)	}
Cotton	
Castor-oil	
Fallow land	10·0
	<hr/>
	100·0

The Nazareth people, owing to the abundant rainfall, were induced to sow a very large tract, and the result has been a most splendid harvest. Considerable difficulty is found in conveying such a quantity of grain and straw to the village, as it has to be carried on camels, mules, and donkeys, some four or five miles, half of which is over an execrable mountain path. This inconvenient arrangement is necessitated by the fact that all the crops must be thrashed on the village threshing-floor in order that the *'ashr* or tithe may be there taken from all at once.

Instead of the countless black "houses of hair," as the Arabs term their tents, which used to swarm here, I saw but two ragged specimens, so torn and tattered as scarcely to afford even shelter from the sun, and inhabited by two miserable families, whose sole possessions were a few goats. Certainly the glory of the Bedawi is departed, and were it not for the increased exactions of Government the condition of the fellahín would be much improved.

At Tiberias I made inquiries about the colony of Jew fellahín living at Bakín, some three or four hours distant from Safat. The account I had previously received at that place was confirmed. They consist of ten to twelve families, whose occupations and manner of life differ in nothing from that of their fellow-villagers, and they intermarry with the Jews of Safat and Tiberias. I am not aware that these men have ever been visited and described by any traveller, and it would be interesting to observe them following the pursuits of their ancestors in the land which once was theirs.

At the Jisr Benat Yakúb I found the Jordan a quick, brawling stream, some twenty-five yards wide, but in bulk scarcely one-quarter of what it is at its final exit into the Dead Sea. This is easily accounted for when we take into consideration the size and importance of its lower tributaries, the springs around the shore of Tiberias lake, the Nahr Yarmuk, which, flowing down Wady Mandhur, falls into the Jordan a little north of the Jisr el Mejamia, bringing down the whole

drainage of Jayd'úr, the Janlan, and the Hauran (Ituræa, Gaulonitis, and Auranitis), together forming a stream but little inferior in size to the Jordan itself as it issues from the Sea of Galilee. The streams, too, from Wady el Arab, Wady Jalúd, and the numerous springs above Beisan (Scythopolis), all add to the main stream, though during part of the year nearly all their water is absorbed by irrigation.

Leaving the Jisr Benat Yakúb, some twenty minutes brought me to the summit of the Jaulan plateau, which consists of red soil thickly strewn with basaltic boulders. Small springs are numerous, and in their vicinity are considerable tracts of *dawah*, or millet, belonging to the Turcomans, who number some 600 tents in this district. At 2.20 I began to enter a woodland, sadly-spoilt by the ravages of charcoal-burners, who destroy with fire many more trees than they are able to cut up with their primitive hatchets. The trees consist of evergreen oak (*Q. pseudococcifera*), *butm* (terebinth), and *z'a'arûr* (hawthorn). I then passed Tell el Khanzir, a volcanic mound with a crater opening northwards. Tell Abu Nedda (the Father of Dew), lying west of Kunayterah, seems formed entirely of mud; the plain surrounding it consists of yellowish volcanic clay overlaid by a thin stratum of hardened grey mud, which resolves itself into almost impalpable dust in the roads. I noticed that all the craters of these tells open in a northerly direction, as is the case with the Tulul el Safáh to the east of Damascus.

At Kunayterah I found an encampment of the Fádil Arabs between the spring and the ruins, and betook myself to the tent of the shaykh. After a little while some of the Arabs managed to pick a quarrel with a Kurdish *zabtiyeh* (irregular horseman) who was with me, and nearly got up a row, but a little forcible language soon brought them to their senses, and two of the shaykhs came and kissed my hands with abject humility.

These Arabs have large herds of cattle, but very few goats or sheep; they own several mares, which, however, are not worthy of much notice.

The night was cold and the dew heavy. Next morning when I started, shortly before sunrise, dense clouds hung on the tells and Hermon, but were soon dissipated by the warmth; but for the first hour I felt that a great-coat would have been a luxury. From Kunayterah to Sa'sa a paved road is traceable, and in places is in almost perfect preservation. It is usually said to be Roman, but the extreme crookedness of the line militates against this idea. In places *détours* are necessary to avoid a morass, but this route is exceedingly, and, to all appearance, unnecessarily, devious in crossing the basalt field west of Sa'sa. At this village, situated on the 'Awaj, which Mr. Porter dogmatically informs us was the ancient Pharpar, is a large khan, which the same authority tells us was built by Sennan Pasha, who greatly distinguished himself in this line of architecture; but the stone over the principal gate has never been inscribed, and I was unable to find any date on the building. The khan

is very large—some 200 yards square—and is built of twenty courses of limestone upon three of basalt, the stones in all cases being drafted.

As I was leaving this place an Arab from Dor el Baydha, in Morocco, joined me, having just been stripped on the road I had come over. The robbers were two men, probably Druzes, who only left the poor fellow his cap, slippers, and a bit of cotton rag, taking from him his cloak and shirt and thirty-seven piasters, his sole possessions. This man had been to Mecca and Jerusalem, and was now on his way to Kerbela, near Baghdad, to visit the tombs of Hasan and Husayn, before returning to his own country.

Leaving Damascus on July 13th, I rode to Sunamayn. This name, "the two idols," is taken by Mr. Porter as being derived from two high and conspicuous towers, but unfortunately for the theory there are five towers, of almost equal height and prominence. The name, as was first suggested to me by my friend the Rev. W. Wright, of Damascus, is probably derived from a block of basalt lying near the city gate, on which two figures are sculptured in bas-relief, and though much battered and defaced are still quite recognisable.

The square towers in this part of the Hauran have all the appearance of being Saracenic work. They "batter" considerably, and are usually ornamented with two or three ornamental cornices at intervals, generally on a level with the floors of the different stories. These cornices, however, are not unfrequently made up of odds and ends, which shows that, whatever the date of their present construction, they are made up of the *débris* of other buildings. In one tower the window of the upper story is placed nearly half its breadth askew, and in another, at Tuffas, near Mezayrib, a rude pointed arch is introduced, which further confirms their modern origin. In various parts of the town I noticed pieces of ornamentation, well executed but more florid—as, for example, a sort of honeysuckle pattern over a window—than what I had been accustomed to in the eastern Hauran.

On the road between Sunamayn and Damascus large caravans of the huge well-fed Hauran camel were constantly met with, bringing corn and barley to the capital. The return animals were usually unladen; some carried a box of apples or apricots, or a few wooden pitchforks, or other equally rude agricultural implements. These caravans number from twenty to sixty camels, and are accompanied by a man to every two or three beasts. A few flint-locks and rusty pistols are still necessary to ensure their safety, for though the great raids are now rare, small forays are of everyday occurrence in the Hauran. Only the day before I reached Sunamayn, a small party of Arabs ('Orban el Jebel) from the Druze mountain had ridden up to the village and carried off a camel and a horse. The next day, too, at 'Ain K'taybeh, I found an Arab with a sword-cut on his arm which he had received during the night from a band of plunderers whom he met on the road.

Soon after my arrival at Sunamayn, a party of Damascenes who had lent money to the villagers arrived to look after their interests. The

dress and appearance of these amateur travellers in the "Chól" amused me sufficiently. Silk robes and patent-leather boots, silver narghilés and worsted-work slippers, green-lined umbrellas and a folding iron chair-bedstead were the order of the day. Stretching their weary enervated limbs on hastily improvised divans, they managed to regain sufficient strength to attack with success the huge dish of *burghul* (crushed wheat) and mutton which the shaykh brought in for our dinner about 8 p.m.

On July 14th I left Sunamayn at 4.30 a.m. As the route from this place to Umm Keis (Gadara) seems but little known, I give my route and time, which, I must premise, is at the rate of about four miles an hour, as far as Mezayrib; thence to Umm Keis and Beisan little more than three, owing to my baggage-mule having suddenly become lame, and my being compelled to take any kedísh (pack-horse) that I could find at the different villages.

I hope our American cousins will not feel aggrieved at my having ridden through a corner of the country east of the Jordan, of which they will "be monarchs so soon as they begin to survey." I am, however, quite ready to put forward various claims, both direct and indirect, arising from the fact of their having delayed their expedition so long that, as yet, no cairns have been erected east of the Jordan to enable us to connect the two surveys.

	H. M.	
Sunamayn to Ignayyeh* (L.).....	50	Small village.
„ 'Ain Ktaybeh (L.)	50	Tell and ruins; small birket, from which a spring flows.
„ B'gayya (R.)	25	? Bukayya. A spring rises here which passes on to the next, and by a canal to Dilleh, whence it seems to be carried off in a south-west direction, not as stated by Murray (p. 504, vol. ii. ed. 1868) to the south-east. A broad marsh extends to the east, full of flags and rushes.
„ Second ruin of same } name (R.)	10	
„ Dilleh (R.)	25	
„ Shaykh Meskín (R.)	1.35	Village.
„ Taffas (R.)	2.15	Village. D'ail (vil.) about half mile to L. at 1.10.
„ Mezayrib	45	
Total	7.15	

This road is over a monotonous plateau beside the telegraph posts—the wires in many places being absent, owing to a prejudice conceived against them by the Arabs, which they show by cutting them—sup-

* These places are spelt in Vandevælde, Kuneiyeh, Kuteibeh, Dilly, Eshmis-kin, Tufs, and Mezayrib.

posed to connect the garrison at Mezayrib with the authorities at Damascus. In places a fragment of paved road appears, but seldom elsewhere than across some piece of ground which in winter would become a swamp.

At Mezayrib the Kalaa or Fort—the residence of the Mutasserif of the Hauran—a Saracenic building, is separated from the cavalry barracks, which though not yet completed are already falling to ruin, by a small stream. After supplying a mill, this water runs into a lakelet in the centre of which the village is built on a small tell of basaltic boulders. It is connected with the mainland by a rough narrow causeway, and in the old days must have been unassailable by Bedawi *ghazzawat*. Fish of considerable size are said to exist, but the fellahín are too ignorant and lazy to take them either by net or line.

During the summer months a cavalry camp of three or four troops is pitched here and serves to keep the Sirhan Arabs, the Benú Sakhr, and the Wulid 'Ali in some sort of check. I noticed some handsome mares here belonging to the two former tribes. Indeed they are considered to have the best mares in the desert, which is accounted for by their frequent proximity to Nejd. The fellahín told me that some ten years ago these Arabs used to exact blackmail from them regularly, and not content with this would come into the houses and carry off food, clothing, and household utensils, but that since the establishment of troops in the Hauran these objectionable practices have been put a stop to.

A sort of huckster's market is now established during the summer months at Mezayrib, in which all kinds of odds and ends and trumpery are sold to the Bedawin, often in exchange for *semn* (clarified butter).

The climate of this place is unhealthy and feverish and the water tepid. The far-famed fleas, too, of the Hauran keep up all their *prestige*, and effectually banish sleep from all but pachydermatous fellahín.

July 15.—		H. M.	
Mezayrib to valley.....	45		Here the limestone again appears on the surface ; flints in wady bed.
„ Wells in Wady Shel-láleh	2. 0		Immense herds of she-camels belonging to the Benú Sakhr watering here.
„ Maghaír	1.15		
„ 'Arbid *.....	45		Ancient Arbela.
„ Kufr Jyyiz	1.30		Small village to right. Excavated tombs, quarries, and wine-presses scattered about.
„ Síma	15		Small village on road. Wells ten minutes further.
„ Hátib	1.20		Small village half mile east of road.
		<hr/>	
		7.50	

Putting my scanty baggage on a camel, as the mule was scarcely

* Spelt by Vandeveld, Irbid.

capable of walking, I rode on ahead. Just above the wells in Wady Shelláleh is a ruined bridge or aqueduct (? from B'gayya) across the valley, built of large drafted stones. A little higher up the wady are several excavated caverns, in one of which I observed (pigeon ?) holes similar to those which have so much puzzled travellers at Beit Jibrin and Deir Dibwan in Palestine. On my arrival at 'Arbid the kaimakam sent to ask me to rest with him, which I did. After breakfast the mejlis (tribunal) assembled and began to discuss affairs.

Imagine a room some 20ft. by 15ft., with mud walls and floor, and smoke-stained roof of beams and brushwood, supporting a layer of earth. At the end a divan occupied by the kaimakam and self; on two sides the native shaykhs, &c., seated on rush mats and smoking long chibouks; the other end, lighted by a window and door, through both of which zabtiyehs (horsemen), fellahín, and others, were continually coming and going.

The kaimakam was a civil little Turk, dressed in a cotton *kumbaz*, which would have been improved by soap and water, over which to receive me he had put a fur cloak, which the heat, however, soon compelled him to discard. His Arabic was scanty, and spoken with a broad Turkish accent. The members of the mejlis were of the usual type, one could read, none could write. Soon afterwards the mutassebji (tax-collector), a dapper, self-satisfied little Damascene Christian, speaking fair French, came in.

First case.—Enter a man and speaks to the kaimakam thus: "Oh, Bey, I wish for the release of Mohammed, now in prison."

Kaimakam, to zabtiyeh: "Bring him in."

Member of mejlis to prisoner: "What are you here for?"

Prisoner: "For shooting a man whom I did not shoot."

K., to friend: "What is the man here for?"

Friend: "For shooting a man in the ghor. The man's brother brought him here, but he's a Belga Arab, and is gone home, so I want you to let Mohammed go."

Member of mejlis (in dogmatic parenthesis): "As we have imprisoned him so we have power to release him."

Kaimakam: "But if we let him go and the other man wants to prosecute him, will he come?"

Friend: "Oh, yes, to be sure he will."

Exeunt friend and prisoner in triumph.

Secondly comes on a complaint from some of the villagers (Greek Christians) of El Hasim, that the Mohammedans prevent their drawing water from the only well in the place. Pandemonium in the mejlis. Six or seven men scream and gesticulate at one another for five minutes. During a momentary lull a voice is heard to observe quietly that this is like a quarrel between two Haríms. A dead silence for a few moments and then the matter is discussed more quietly, and the Moslems are ordered to let the Christians have their share of the water after ten days. The Moslem shaykh goes out spluttering uncouth oaths.

Then begins a discussion wilder and stormier than the first, till one of the chief disputants sinks back exhausted. A voice then suggests the fact—"There is no deity but God, and all men were made by Him; the rain is His gift: therefore let all men partake equally of it." A murmur follows of "Wallah! that's true! That's just!" and orders are given that the Christians are to take what water they require.

While a pack-horse was being procured I took a glance at the large circular basaltic mound which formed the old fortress. It is about three hundred yards in diameter, with a depression in the centre containing several ruins built of old materials. On the outside a wall of large unhewn stones is in places visible.

Balked in my intention of proceeding the same evening to Umm Keis, by the continued sliding of my baggage from the back of the Rosinante told off to carry it, I was compelled to stop for the night at Hatib. Just before reaching that place I was joined by some sixty irregular horsemen from Jerusalem who had been riding the Jebel 'Ajlún to collect the *willi* or tax imposed on the tent-dwelling Arabs.

July 16.—		H. M.	
Hátib to Belka	.....	1.15	Lost thirty minutes here by mistake in road.
„ Sáfin.....		1.15	(? Safineh, the Ark.) A ruined Roman station on a tell to the left of the road, which in many places shows traces of pavement, and in others is cut through the rocks, and still shows marks of wheels.
„ Umm Keis		20	
		2.50	

The greater part of this route lay through a woodland of *ballut*, butm, hawthorn, *kharrub*, and large-leaved lime-trees. The road, as is almost universally the case with those engineered by the Romans, runs along a ridge, thus avoiding all unnecessary gradients.

The hundreds of basalt sarcophagi scattered about Umm Keis are of the regular *North* Syrian type, ornamented with bosses and floral scrolls on the sides, and covered by a ridge-topped lid having greater spherical knobs at the corners. Mr. Porter (Murray's Guide, vol. ii. p. 302) states that this basalt must have been brought from some distance. He is seemingly unaware that the town stands partially on an outcrop of basalt, which falls away in steep cliffs to the ghor due west of the town, and distant a little more than a mile. For a further account of the ruins I may refer to his description, which is, with this exception, correct.

Leaving the ruins I intended to go to the *Hammeh*, or hot-springs, and a zabtiyeh, who had been sent to escort me from 'Arbid, professed to have come that way only three days previously. Having no map with me I wildly put my trust in him, more particularly as we began

on the road which I had ascertained from the fellahin to lead to the springs. At the end of forty minutes, however, I found that to reach them we should have to go back to the ruins, and as this would have entailed sleeping in the ghor without food or forage, as we could not have reached Beisan that night, I was reluctantly obliged to give up visiting them.

Meeting a *natâr*, or watchman for the crops, I asked him to show me the way to Beisan, which could be seen from the edge of the cliff 100 yards distant. The man expressed unwillingness and ignorance. One of the soldiers then gave him a push on the shoulder with his open hand, and told him to go on. At this the man began to trot along the path, and wringing his hands to cry, "Dakhl Allah, dakhl Allah," &c. (I seek protection of God). Warming to his work he got into a regular howl, and then flinging his pipe and stick away on one side, slipped off his abba (cloak), then his blue shirt, and lastly his white one, then standing in a state of nature he wrung his hands and howled more wildly than ever. Finding that we were all laughing, he suddenly ceased and turned towards us with a most sheepish look. I blandly asked him if he was insane. He replied in the most natural voice, "No, I'm only a poor devil," and trotted off to pick up his property, doubtless feeling that he had been very much ill-used.

My route is as follows:—

	H. M.	
Umm Keis to edge of cliffs	40	With a <i>détour</i> .
„ edge of ghor	1. 5	Steep descent; bad track.
„ stream at Wady el	45	Water-melons grown here; water
'Arab		
„ Ford of Jordan.....	50	tepid, with slight taste of sulphu-
„ Beisan	2.10	reted hydrogen.
	<hr/> 5.30	

The ford over the Jordan is nearly north-east of Beisan. At the best place the water was only 1½ ft. deep, but I rode up the bed of the river for about 100 yards without the water coming up to my saddle-flaps.

At Beisan the Kadi asked me to stop with him, and I found him a gentlemanly Turk, who bitterly bewailed his banishment to such an out-of-the-way place. Talking of the Bedawi Ghaza, and the idea so born with the son of the desert that "stolen goods are sweet," he told an *à propos* story of a rich Kurd who stopped at his house in Anatolia. Another man happened to be there with a load of honey. In the early night he heard the Kurd continually getting up and lying down again. Watching what he was about he saw him go to the load of honey, take three dips with his finger, and then come back to his mattress and sleep like a child. On being remonstrated with the next morning he said he could not rest till he had *filched* a bit.

During the recital of this story I saw Husayn, shaykh of the Ghazáwi Arabs, licking his lips in sympathy. His tribe have for some time been constrained to give up forays, and now peaceably cultivate the soil of the ghor. Their appearance, like most of the inhabitants of the ghor and Belka, is more like that of fellahín than Bedawín, as they wear long heavy moustaches and beards: the hair on the true desert Arab's face being generally scanty. Good living has probably much to do with this.

At Beisan I found a broken inscription. It is on limestone, and lies near the Serai.

July 17.—		M.M.	
Baysan to Mazár Abn Faraj.....	1.10		A tree and tomb, with a few underground huts and matamoras teñanted by melon growers.
„ Rahub	1. 0		A small village and spring at the foot of the hills.
„ Roman milestones in Wady Khashíneh ...	30		
„ Tyyásir.....	1. 0		Small village to left.
„ Túbás	1.10		Large village; water from wells only.
„ Burj Bardáwil ..	50		Copious springs and mill.
„ 'Ain Fár'a.....	15		Spring; head of Wady Fár'a.
„ Náblus	2.45		
		8.40	

Along Wady Khashíneh I found traces of a paved Róman road as far as Túbás. Here I found wild olive-trees for the first time in Palestine. For two or three miles the hill sides are thickly clothed with them, and such trees and shrubs as *retem* (white broom), hawthorn, wild almond (*el asaf*), caper, *kharrub* (locust-tree), and *sarris* (a common evergreen bush bearing a red berry). Hence some execrable paths led me to the tents at Náblus.

III.

P. E. F. CAMP, JEBA, Aug. 22, 1872.

Having finished the necessary observations from the trigonometrical stations within reach of Náblus on the 6th August, we—that is to say, Lieutenant Conder and myself—went up for a short visit to Jerusalem, leaving the non-commissioned officers to fill in detail.

Our visit there has strengthened my belief that there is still a great deal to be done, and this without any very large outlay. It will be seen from Lieutenant Conder's report that many points which will probably turn out of great value have not hitherto received the amount of attention warranted by their importance. I have great hopes that a few comparatively small excavations which he has planned will, when carried out, be productive of final results.

Up to this time there had been no occasion for any digging in the

country, except for the purpose of opening one or two tombs; which, as I have before mentioned, were unproductive. A few days ago we were told of wonderful remains at a place called Duwaymeh, lying at the eastern base of Mount Gerizim. An inspection of the place showed us two syenite pillars, fifteen feet six inches long, and about two feet in diameter, slightly bulging in the centre, and terminated by a plain fillet and astragal. A third column was taken from this place by Mohammed Saïd, the late pasha, and is now lying near the unfinished barracks between Nâblus and Balâta. There is also a broken column at the former place. Here we determined to dig, and sent to the neighbouring village of Kefr Kallîn for five men, who came and dug without a murmur, and never even asked what they were to be paid. A trench running north and south, at right angles to the two fallen pillars above mentioned, brought us, at the depth of about two feet, to a tessellated pavement of good colours but poor execution, and set in friable cement. The patterns were heart-shaped leaves, twists, and other commonplaces. The cubes are half-inch and consist of white, pale yellow, red, pink, and blue-black limestones. We found other cubes (three-quarter inch) scattered about, but none *in situ*. Pottery was not abundant: only a few fragments of coarse red, and a bit or two with a bad glaze, were turned up. I observed no glass except the mouth of a rude bottle, and one square of glass mosaic, part perhaps of some wall decoration. The workmanship of the pavement in no way equalled that of the pillars, hence the presumption that these latter were brought from some older building—perhaps the Gerizim temple—and made use of in building a Roman villa. A fellah who had been employed to dig by Mohammed Saïd Pasha, told me that the mosaic extended over a space some fifty yards square. In one place a small tank (bath or impluvium?) had been found lined with marble. Sister columns to the above-mentioned exist in a broken state in the ruined church at Jacob's well, and a perfect one lies between Joseph's tomb and the hamlet of Askar. Here, too, an extensive mosaic pavement exists.

The walls of this villa seem to have been simply made of rubble. The columns lay nearly due east and west, and this, joined to the fact that the mosaic beneath has been crushed by their fall, leads to the conclusion that they were overthrown by an earthquake.

The old town of Nâblus seems to have extended much farther east than it does at present. Some vaults were found when digging the excavations of the before-mentioned barracks, which, though unfinished, are rapidly falling to ruin. Several persons, too, in the town declare that they hold title-deeds of shops and houses in the same locality, but I have not been able to obtain a sight of any of these documents. An oblong mound, with traces of a rude wall on the western side, blocks up the mouth of the valley between Balâta and Askar, and if, as some conjecture, the latter represents the name of the old Sychar, which I cannot but consider as separate from Shechem, this

may have been its position. Still it is one of those points which must always remain uncertain from want of evidence either for or against.

Before leaving Náblius we paid a visit to the Samaritan synagogue, to inspect the famous MSS. Taking off our boots, we entered the synagogue with the old priest Amran, who, without any difficulty, showed us the first MS. This is contained in a brass scroll-case ornamented with a florid arabesque of silver, fastened on in very thin narrow plates. I then asked him to show us the other two rolls—viz., the one said to be written by Abishugh and the next oldest. At this request the old man expressed the utmost surprise, and wished me to believe that this was the real Simon Pure. As, however, on my first visit with Mr. Palmer I had seen two, and on a subsequent visit with Captain Burton three, I was able to assure him that I knew all about them. He then said the key was with his nephew Yakub, who soon appeared, and after a little persuasion showed No. 2, enclosed in a case of workmanship similar to but better than No. 1. On one side of this are depicted the cherubim and altar, the branched candlestick, the pot of manna, Aaron's rod, the flesh-hook, and other sacred utensils.* A legend round the edge gives the date A.H. 860—or A.D. 1456—(the Samaritans have since, soon after the Mohammedan conquest, dated by the year of the Flight)—and the name of the workman, Yakub ben Fawki, of the town of Damascus. Amran told me that an old tradition states it to be the work of a Damascene Jew. The style of work is distinctly Perso-Damascene, and is still employed in the ornamentation of narghiles, trays, dishes, and other brass ware, by a Persian Jew now living at Damascus. These things are often sold to travellers by the *bric-à-brac* dealers as genuine antiques. Having inspected No. 2, I asked to be shown the real MS. Both the priests immediately exclaimed that there were no more, but I again assured them that I had seen it. Yakub looked nervously at his uncle, and asked what was to be done. Amran shrugged his shoulders and said he did not care. Yakub then asked me why, having seen it once, I wanted to see it again. I replied that Lieutenant Conder had never seen it. He then said that he could not bring it out of its chest.† This was just what suited us, as we were able to see the rolls in their places behind the veil (a white quilted counterpane) and assure ourselves that there were no others. The roll (No. 3) is kept in a case of solid silver of modern workmanship, and has all the appearance of much greater antiquity than either of the other two. It is treated, too, with the greatest respect. On opening it Yakub kept repeating *Destúr* (permission) and *Bismillah* (in the name of God). The evidently real hesitation about showing this roll at once proclaims it to be the one venerated by these Cuthim. It is kept in a cupboard or upright chest with No. 2, No. 1 being in a separate box outside.

* For photographs of this see the P. E. F. series, Nos. 225—228.

† This can only be done when the high priest is ceremonially clean, and has been that day to the bath.

The roll No. 3 is seldom shown to travellers; in fact, I believe that very few indeed have seen it. But as it is now getting generally known that there are three rolls, I hear that the Samaritans intend getting up a fourth to show instead of No. 3. In course of time they have grown to regard this roll as a fetish, and though they will forswear themselves by the name of God as easily as other orientals, an oath on this is sacred. An anecdote showing the value at which it is held by an intelligent British tourist, was told me on the best authority. A certain Englishwoman, travelling with a firman from the Sultan and at government expense, came to Nablus, and made arrangements to see the rolls by night, as it was the time of the Passover, and the High Priest was engaged on Gerizim during the day. Having seen it, she presented a backshish of one shilling. Such munificence ought to make us proud of our countrywoman.

There is a curious fact connected with the Samaritans. The whole number of the community is 135 or 136, and of these eighty are males and fifty-five females. Considering the long course of intermarriage practised by these people it is very remarkable, and is tending rapidly to destroy the race, as marriage, either for men or women, with other than their own sect, is strictly forbidden.

There is at Jerusalem, in the possession of Mrs. Ducat, a poor German Jewess, a Samaritan MS. called the "Fire-ried," about which a few notes taken from an account written by Dr. Jacob Frederick Kraus may prove interesting.*

It is called the "Fire-ried" by the Samaritans from a note at the end of the Book of Numbers to this effect—"It came out from the fire by the power of the Lord to the hand of the king of Babel, in presence of Zerubbabel the Jew, and was not at all burnt. Thanks be to the Lord for the Law of Moses."

It is in the form of a book—not a roll—written on parchment, and contains 217 leaves. It is incomplete at beginning and end, as it commences at Genesis xi. 11, and ends at the beginning of Moses' blessing in Deuteronomy. The pages are 11 by 9 inches. The text is divided into verses and sentences; words at the end of a line are not broken, but—except in the case of the name of the Lord—the letters are spread out to fill up the required space. The letters are rather larger than those in Abishuah's roll (Samaritan No. 3), and some appear to have been gilt. The decalogue is not, as in later MSS., numbered at margin. The paragraphs are not numbered or described as in more modern ones, which, for instance, say, "This is the first book of Moses, containing 250 paragraphs," &c. Dr. Kraus considers these to be two proofs of great antiquity. He goes on to say that Abishuah's roll has a kind of acrostic in the middle of the lines, made by darkening one or more letters. Read down the roll this makes, "I, Abishuah, son of Phineas, son of Eleazar, son of Aaron the priest—the goodwill of the Lord and his glory be on them—have written this holy book in the door of the

* See photographs Nos. 171—174.

tent of the congregation on Mount Gerizim, in the thirteenth year of the government of the children of Israel in the land of Canaan, with its boundaries round about. I thank the Lord."

The "fire-tried" MS. has no acrostic, but a note at the end of Genesis: "This holy Torah has been established by a wise, valiant, and great daughter" (?) "a good, precious, and intelligent leader, and by a master of all knowledge, from Shelomo son of Saba, a valiant man, a leader of the congregation, and an instructor of his generation, as well by his knowledge as by his intelligence; he was a benefactor and an interpreter of the Torah and a father of blessings; he was of the sons of Nun—may the Lord be gracious to them—and it was appointed to be a thing dedicated to the Lord, that men should read therein with fear and prayer in the house of the High Priest on the tenth day of the seventh month, and this was performed in my presence, and I am Ithamar, son of Aaron, son of Ithamar, the High Priest. May the Lord renew his strength. Amen." Thus far Dr. Kraus.

The MS. was obtained by Mrs. Ducat's late husband in the payment of a bad debt. Owing to the exaggerated price (£1,000) asked for it when brought to England a few years ago it has never been sold. It could now be purchased probably for about £200.

The survey is proceeding most satisfactorily, and in about another month we hope to begin measuring the second base-line on the plain of Esdraelon.

The other day we came across a volcanic outbreak which, as far as I am aware, has never been noticed. It appears beneath and west of Shaykh Iskander, a prominent tomb some nine miles W.N.W. of Jenin. Here I found volcanic clay, nodules of hard black basalt in beds of friable brownish-grey syenite (?). This accounted for the waterworn appearance so often assumed by basaltic boulders, and which had long puzzled me. The character of the superincumbent limestone seemed somewhat changed in places both in colour and texture.

For some distance to the south of this outbreak is a district covered with dense brushwood of *sindian* and *ballut* (*Quercus coccifera* and *Q. pseudococc*), of the *Arbutus andrachne*—locally *kykab*—mixed with a few trees of *khurru* or locust. To the north, and extending as far as Carmel, is an arid uninhabited waste, treeless and waterless, rugged and pathless, covering perhaps some sixty or seventy square miles, which will take us a month to survey, and we shall doubtless feel glad when it is finished.

NOTICES OF PALESTINE IN THE CUNEIFORM INSCRIPTIONS.

BY GEORGE SMITH.

THE Assyrian cuneiform inscriptions contain some of the most remarkable illustrations of biblical history and geography. During most of the period of the Jewish monarchs, the Assyrians were in direct com-

munication with Palestine; their armies traversed the country, and they conquered and took tribute from many of the kings so well known to us from the Bible narrative.

The earliest monarch whose inscriptions describe any Syrian conquests is Sargon, king of Agane, who reigned at least as early as the sixteenth century B.C.

Sargon, after making other conquests in Elam and Syria, started from his capital, Agane, which was situated near Sippara (the Sepharvaim of Scripture), and advanced to the Mediterranean Sea, on the shore of which he set up a monument to celebrate his victories. Sargon gives a curious account of his own history; according to which his mother, after his birth, placed him in an ark made of rushes and bitumen, and set it afloat on the River Euphrates. In this story there are several points of resemblance to the history of the infancy of Moses.

For several centuries after the expedition of Sargon, we know of no campaigns in Syria; but in the time of Tiglath Pileser I., *cir.* B.C. 1120, the Assyrian arms were carried across the Euphrates, and as far as Palestine. Tiglath Pileser reigned about the time of Eli, Judge of Israel. He defeated some tribes of Hittites, and captured the city of Carchemish; after which he advanced with his army to the slopes of Lebanon, and embarking in a ship of Arvad, killed a dolphin or porpoise in the Mediterranean Sea. The Assyrian empire at this time extended from near Babylon to the Mediterranean, and appeared likely soon to absorb the whole of Palestine; but the Syrians threw off the yoke of Assyria, and an Aramean monarch defeated the Assyrians about 1050 B.C., and drove them again across the Euphrates.

The defeat of Assyria left room for the growth of the power of the Israelites, under the rule of David and Solomon; and the Assyrian empire did not revive until after the death of Solomon, and the breaking up of his dominion.

The career of Assyrian conquest recommenced with Vul-nirari, who ascended the throne B.C. 912. His son Tiglath Ninip, B.C. 890, conquered Naharain; and the next monarch, Assur-nazir-pal, who began his reign B.C. 884, once more crossed the Euphrates.

About B.C. 870, Assur-nazir-pal marched into Syria; he crossed the Euphrates near the city of Carchemish, and Sagara, king of Carchemish, gave him tribute. Passing numerous kingdoms on his way, he then marched to Lebanon, and crossed the Orontes. Here he built a fortress and established an Assyrian garrison. Then skirting the foot of Lebanon he marched to the sea-coast and received presents from Tyre, Zidon, Gebal, Arvad, and other Phœnician cities. No permanent conquest was effected in this expedition, and Assur-nazir-pal died B.C. 859, and was succeeded by his son, Shalmaneser II., who made vigorous efforts to subdue Syria and Palestine.

After five years of war, having conquered all the intermediate countries, Shalmaneser in B.C. 854 advanced into Hamath, ravaging the country and destroying the towns. His advance was interrupted by

the forces of a league of kings of Syria and Palestine, under the leadership of Ben Hadad of Damascus. The army of the confederates was made up as follows:—

2,400 chariots and 20,000 footmen of Ben Hadad of Damascus; 1,400 chariots and 10,000 footmen of Irhulena of Hamath; 2,000 chariots and 10,000 footmen of Ahab of Israel; 500 footmen of the tribe of Goim; 1,000 Egyptian troops; 10 chariots and 10,000 footmen of Irqanata; 200 footmen of Matinu-bahal of Arvad; 200 footmen of Usanata; 30 chariots and 10,000 footmen of Adonibahal of Sizana; 1,000 camels of Gindibuh the Arabian; 10,000 (?) footmen of Baasha, son of Rechab the Ammonite.

Including the charioteers, the whole number of the confederate forces probably amounted to about 85,000 men.

A battle took place on the banks of the Orontes, in which Shalmaneser claims the victory; but the engagement stopped the Assyrian advance, and Shalmaneser returned to Nineveh.

Four years later, B.C. 850, Shalmaneser again advanced against Ben Hadad and his allies, and another indecisive battle took place. The next year, B.C. 849, the war was continued, and in the battle which followed the confederates were defeated with the loss of 10,000 men. This engagement did not open Palestine to Shalmaneser, any more than the others, and in B.C. 846 the Assyrian monarch made a more determined effort; and, raising the whole strength of Assyria, he crossed the Euphrates at the head of 120,000 men. Again he defeated Ben Hadad, but such was the strength of the league that he gained no advantage from his victory.

After this expedition the Syrian league was dissolved. Ben Hadad died, and was succeeded by Hazael. Other changes also had taken place in Palestine: Moab was independent of Israel; and the family of Ahab had been destroyed by Jehu, who now occupied the throne of Israel.

Shalmaneser now renewed his attack, and in B.C. 842 marched against Hazael, king of Damascus. The Syrian monarch posted his troops in a strong position on the mountains of Saniru (the Shenir of the Bible?) in Lebanon, and here he sustained a decisive defeat at the hands of Shalmaneser, 16,000 of the Syrian troops falling in the battle, while 1,591 chariots were captured by the Assyrians. Hazael fled from the battle-field with the wreck of his army, and shut himself up in his capital, Damascus, where he was followed and closely besieged by the Assyrians.

After wasting the neighbourhood, and cutting down the forests for use in the siege, Shalmaneser, unable to take the city, turned into the Hauran and wasted it with fire and sword. Afterwards he marched to the coast of the Mediterranean, to a place called Bahlirahsi, and set up a stele to commemorate his victories. Jehu, who is called "son of Omri," and the King of Tyre and Zidon, now gave tribute to the conqueror.

Three years later Shalmaneser again invaded Syria, but Hazael did not meet him in the open field. This time the Assyrians besieged and captured four cities of Hazael, and received tribute from the kings of Tyre, Zidon, and Gebal. Damascus, however, was not taken, and no road was yet open into Palestine.

The army of Shalmaneser was afterwards in Syria on the Orontes, but no further attempt was made against Damascus, and Shalmaneser died B.C. 823, and was succeeded by his son Samas-vul. Samas-vul carried on war principally in Naharain and Babylonia, and left his crown in B.C. 810 to his son Vul-nirari.

Vul-nirari III., who reigned twenty-nine years, made several expeditions to Syria and Palestine. In one of these he marched against Mariha, king of Damascus, and the Syrian monarch, overcome by fear, admitted him within the walls of the city, and made his submission to Vul-nirari; he likewise paid on the order of the conqueror 2,300 talents of silver, 20 talents of gold, 3,000 talents of copper, 5,000 talents of iron, and various articles of value. The occupation of Damascus by the Assyrians, for the first time opened Palestine to their inroads, and now Vul-nirari received tribute from the land of Omri (Israel), Philistia, and Edom.

Vul-nirari was succeeded in B.C. 781 by Shalmaneser III., who made two expeditions to Syria, one in B.C. 773, to Damascus, and another in the next year, B.C. 772, to Hadrach. No details of these expeditions have been discovered.

On the death of Shalmaneser, Assur-dan III. succeeded in B.C. 771. This monarch marched to Hadrach in B.C. 765 and 755, and to Arpad in B.C. 754, but the details of these expeditions are not known.

Assur-dan was succeeded by Assur-nirari in B.C. 754. Under this king the Assyrian power declined, and his reign was ended by a revolution in B.C. 745, which placed Tiglath Pileser II. on the throne. Tiglath Pileser, soon revived the ancient glory of Assyria; he marched to Arpad in B.C. 743, and entering the city after a conflict with the Syrian forces, he received the submission of several of the kings of that region. The king of Syria at that time was Rezin, who is so often mentioned in the books of Kings and Isaiah. A heavy tribute was imposed on Rezin and upon the kings of Tyre, Hamath, and other cities. The next year the Syrians revolted, and Tiglath Pileser marched to Arpad, which he besieged for three years, B.C. 742 to 740, and on the capture of Arpad he advanced against Hamath. The people of Hamath obtained the assistance of Azariah, king of Judah, who sent a force to help them. This army was routed by Tiglath Pileser, who then overran most of Hamath, and annexed a large portion of it to Assyria. During his stay in Syria, Tiglath Pileser received tribute from Menahem, king of Samaria, and the expedition returned to Assyria in B.C. 738.

The Assyrian annals mention another expedition to Palestine by Tiglath Pileser in B.C. 734. The inscriptions of this period are imperfect, but this war appears to correspond with that mentioned in the second

book of Kings and Isaiah, when King Ahaz, pressed by Rezin and Pekah, sent to Tiglath Pileser to help him. The commencement of the expedition in the Assyrian account has not been found: the fragments of that record begin with the battle between the forces of Rezin, king of Damascus, and Tiglath Pileser. In this engagement the Syrians were routed, and Rezin fled to Damascus. The Assyrian monarch then ravaged Syria, and laid siege to Damascus with part of his force, while with the rest he marched into the land of Israel. Here he captured and spoiled the cities, carrying the people into captivity. From Israel Tiglath Pileser marched to Philistia. He attacked Askelon, but Mitinti, king of Askelon, who had rebelled, died, and his successor, Rukipti, submitted to Tiglath Pileser. The next place attacked was Gaza. Hanun, the king, fled into Egypt, and Gaza was captured and spoiled. Hanun then came and submitted to Tiglath Pileser. The Assyrians afterwards subdued Samsi, queen of Arabia, and various other princes and tribes, and the war was ended with the capture of Damascus in B.C. 732. Among the tributaries at the close of this campaign occurs the name of Yahuhazi (Ahaz) of Judah. One other event in Palestine is recorded in this reign. Tiglath Pileser states that on the death of Pekah, king of Israel, he established his successor Hoshea on the throne.

On the death of Tiglath Pileser, king of Assyria, B.C. 727, he was succeeded by Shalmaneser IV., who is mentioned in the second book of Kings; but the annals of this monarch have not been discovered, so we have not got the Assyrian version of his relations with Hoshea.

In the year B.C. 722 there was another revolution in Assyria, and Sargon ascended the throne. Samaria having revolted, he, at the beginning of his reign, besieged and captured that city, carrying away captive 27,290 people, and putting an end to the kingdom of Israel. He afterwards, in B.C. 720, crushed a rebellion in Hamath which had spread to Israel and Damascus. In the same year, advancing to the south of Palestine, he subdued the Philistines and Judah, and defeated Sabako of Egypt and Hanun of Gaza at the city of Raphia, where Hanun fell alive into his hand and was carried to Assyria.

Afterwards Sargon, in B.C. 715, received tribute from Pharaoh of Egypt, Samsi, queen of Arabia, and Ithamar the Sabeian, and he transported some of the Thamudites and other rebellious Arab tribes into the cities of Samaria.

In B.C. 711 Sargon was again in Palestine. The people of Ashdod had revolted under Azuri, their king, and were subdued by Sargon in one of his earlier campaigns. Sargon placed Ahimiti, a brother of Azuri, on the throne, but the people of Ashdod revolted against him, and raised a man named Yavan to the throne. Yavan sent to Pharaoh of Egypt and other kings in the neighbourhood to make alliance against Assyria. Egypt at this time well merited the denunciations of Isaiah, for Sargon tells us that after encouraging the others

in their revolt, Pharaoh gave them no help when the Assyrians advanced against Palestine.

In B.C. 711 Sargon marched against Philistia and Judea, but Yavan fled into Egypt on the advance of the Assyrians, and Ashdod and Gimzo were captured and his country subdued. Pharaoh now crowned his treachery by delivering Yavan bound into the hands of Sargon.

Sargon died B.C. 705, and was succeeded by Sennacherib, one of his younger sons. Hezekiah, king of Judah, had revolted against Assyria and attacked the Philistine cities. Sennacherib, in B.C. 701, marched against him. On his way he first attacked Lulia of Zidon, who fled to Cyprus. Sennacherib then took in succession the greater and lesser Zidon, Zarephath, Hosah, Achzib, Accho, and other cities, and placed Tubal on the throne of Zidon. Most of the kings of Palestine now submitted. Their names given by Sennacherib are—Menahem of Samaria; Tubahal of Zidon; Abdalihiti of Arvad; Urumelek of Gebal; Metinti of Ashdod; Buduil of Beth-Ammon; Kemosh-natbi of Moab; Airammu of Edom.

From Phœnicia, Sennacherib advanced to Philistia, where Zidqa, king of Askelon, refused to submit. He deposed Zidqa, and carried him and his family into captivity, placing on the throne Sar-ludari, son of Rukibti, the former king. Beth Dagon, Joppa, Bene Berak, and Azor, which would not yield, were stormed and plundered.

Sennacherib next marched against Ekron, the people of which had submitted to Hezekiah, and had delivered their king Padi into his hands. Ekron was taken and spoiled, and Padi later recovered from Jerusalem and again seated on the throne. The kings of Egypt and Ethiopia having sent an army against Sennacherib, he defeated them at Eltekeh, and spoiled Eltekeh and Timnah.

The Assyrian monarch then gives an account of his attack on Hezekiah, king of Judah. He captured forty-six of the fenced cities of Judah, including Lacish, and there is a series of slabs from the wall of one of the halls of his palace, on which is depicted the storming of this city, while Sennacherib is represented sitting on a throne in the vicinity of Lacish, and receiving the prisoners and spoil. Hezekiah he shut up in Jerusalem, and built towers round the city to prevent his escape. Hezekiah then submitted and gave to Sennacherib 30 talents of gold and 800 talents of silver, besides many rich presents. Sennacherib, in the course of this war, despoiled Judah of considerable portions of its territory and gave it to the kings of Ashdod, Ekron, Askelon, and Gaza. The Assyrian annals have not yielded any trace of the disaster which overtook Sennacherib's army, and he continued his career of conquest for several years after this campaign. Late in his reign, probably about B.C. 688, he made another expedition to Palestine; but the details of this war are most of them lost by the mutilation of the tablet recording it. Sennacherib, in this expedition, penetrated into Arabia and stormed the city of Edom. He carried

captive the Queen of Arabia and the gods of the country, and returned to Assyria in triumph.

In the year B.C. 681 Sennacherib was murdered by two of his sons, and after a contest for the empire, Esar-haddon, a younger son, ascended the throne B.C. 680. When he had arranged the affairs of Babylon, Esar-haddon marched to Palestine, where Abdi Milkutti, king of Zidon, was in revolt. He captured and destroyed the city of Zidon, and then gathered the kings of Palestine and Cyprus who were subject to him. The rulers of Palestine were—

Bahal, king of Tyre; Manasseh, king of Judah; Kemosh-gabri, king of Edom; Muzuri, king of Moab; Zilli-bel, king of Gaza; Mitinti, king of Askelon; Itusamsu, king of Ekron; Melek-asaph, king of Gebal; Kulubahal, king of Arvad; Abibahal, king of Samaria; Puduil, king of Beth Ammon; Numelek, king of Ashdod.

Esar-haddon afterwards passed through Palestine on several occasions, but there are no details of any interest respecting these expeditions.

Esar-haddon appointed his son Assurbanipal king of Assyria in B.C. 668, and soon after died. Assurbanipal, who was the Sardanapalus of the Greeks, directed his first expedition against Egypt, and on his way received tribute from the kings of Palestine who had formerly submitted to his father.

After his second conquest of Egypt, Assurbanipal besieged Bahal, king of Tyre, who had revolted, and the Tyrians, after a long blockade, submitted. Yakinlu, king of Arvad, then gave tribute, but Assurbanipal afterwards deposed him, and placed his eldest son Azibahal on his throne.

During the troubles of the rebellion of Saul-mugina in Babylon, B.C. 651—648, the Arabs under Vahta invaded Palestine and overran Edom, Ammon, the Hauran, Moab, Zobah, and other places. From most of these they were driven out by the forces of Assurbanipal, and a portion of the Arab army under Ammuladin, king of Kedar, was defeated by Kemosh-halta, king of Moab, who sent Ammuladin in chains to Nineveh. In order to chastise the Arabs for their incursions, Assurbanipal sent an expedition to Arabia and made Damascus the basis of his operations. He afterwards punished the cities of Accho and Hosah on the coast of Palestine for revolting against Assyria. These events, which happened about B.C. 640, are the last referring to Palestine given in the Assyrian annals; but many portions of Assyrian history are still unknown to us, and when renewed excavations have supplied the rest of the Assyrian records, we may hope to have much more information on the geography and history of Palestine.

THE HAMATH INSCRIPTIONS.

TO THE SECRETARY OF THE PALESTINE EXPLORATION FUND.

Esher, Surrey.

DEAR SIR,—In answer to your request for some brief explanation of the three remarkable inscriptions which appear in your present number,

I have great pleasure in putting before your readers the following few facts.

The whole of the first line is almost exactly what appeared as three short lines in a late number of your journal; the actual characters are almost identically the same. A close inspection, however, shows that your three short lines were never meant to be read as we should naturally read them, viz., all three from left to right, or all three from right to left. To those who are accustomed to these things the fact is evident that two were read one way, and the middle one a different way. What I have done is, in fact, to transpose the direction of the characters in the middle line. I have also considered that about an inch and a half of the stone (on your scale of printing) has been cut away on one side, and a gap of three inches (on the same scale) will therefore have to appear when the three lines are brought into one. The reason for affirming the existence of this gap will be very evident to any one who considers the third line of your present publication. This line is from another stone altogether. By arranging the whole as in the former case, so as to read it all from left to right, a much smaller gap is here found necessary; but a gap is obviously required in each, as the inscriptions are obviously composed of corresponding elements, which must be arranged one under the other.

Whether the third short line of this third inscription is wanting at Hamath, or has been lost on the transit home, I know not. So precious is every sign in these most important documents that I trust the originals will be examined once again by the light of my arrangements, with a view to the most perfect accuracy and fulness attainable in the transcripts.

The middle line now published your Society has, unfortunately, nothing to do with; why or wherefore I cannot say. I take it altogether from Captain Burton,* with emendations when obviously necessary. An accurate squeeze of the king's name would probably go far to decide whether my theory of these inscriptions is correct or not.

This theory is that the third set of symbols after the gap in the first line contains quite plainly the Egyptian title of Thothmes III. This spot will be seen by any one who has carefully realised the whole of the above description, to be exactly in the centre of the original stone before the mutilation.

In the second line, exactly under Thothmes, is another Egyptian character which occurs in a king's title of the same dynasty as Thothmes.

The third line in the same central spot has also Egyptian symbols.

Should these views stand the test of criticism, the stones will be 600 years earlier than the famous Moabite stone of Mesha.

I am, yours faithfully,

Sept. 20, 1872.

DUNBAR ISIDORE HEATH.

* "Unexplored Syria." Burton and Drake.

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